Pass I Spencer.

Only successful cases recorded. In the introductory remarks there is allusion to lithotomy. Why are these cases not given? There is no great grasp of general principles or knowledge of what has been done in surgery. This is specially apparent in case of false aneurysm.

**Clinical Notes**

on Some Surgical Operations performed under unusual conditions

by

Introduction

I desire by this paper to show that surgical operations of considerable magnitude may be undertaken and brought to a successful issue, under conditions widely different from those which obtain in a large and well-appointed hospital, and with which medical students are necessarily most familiar.

The conditions to which I refer are different also from those which the emergencies of military surgery involve. They approach more nearly to the circumstances under which similar operations might be performed in provincial practice in this country, and I have reason to believe
that it would be an advantage to many sufferers in country districts if their ordinary medical attendant were more willing than appears to be the case at present to resort to operative treatment, for their relief.

A patient who has spent all his life in a rural district, and who may become the subject of a disease requiring operative treatment, has trials to face hardly less formidable than the operation itself, which may contribute much to deter him from resorting to the only means capable of effecting his cure. He has to undertake a considerable journey to an unknown city — to exchange the air of the country for that of a crowded, smoky town, — and worst of all, to leave his friends and relations and go among strangers, at the very time when he is most in need of their sympathy and loving care.

These disadvantages, although they are probably outweighed by the benefit which the hospital will afford him — excellent
treatment—Careful nursing, ye, are of a nature which appeal strongly to the feeling, which, at such a time are apt to be stronger than his judgment. It is the fear that not a few permit their hesitation to go to hospitals to deprive them of their last chance of relief either by preventing them altogether from applying, or by inducing them to postpone their application till too late. And I have no doubt that many of those who do resort to metropolitan or county hospitals for the simplest surgical operations, would prefer to be treated at home—and that their wishes might be gratified without disadvantage.

The operations which I am about to record were all performed by myself while I was residing in the interior of Asia Minor. The patients were Turks, Armenians, Kurds, or Jews—natives of the city of Antioch, or
visitors who had come for treatment from places one or two weeks.

The operations were usually performed in the patient's house, — a condition which cannot be properly estimated unless I add some description of the ordinary kind of Oriental houses.

The houses of the poor consisted usually of a single apartment of variable length, eleven feet in breadth and ten or twelve feet in height. They were lighted by two or three windows measuring four feet by two, closed by a loose shutter of wool. In winter, the houses were very dark, as glass is only to be seen in the windows of the rich. The furniture is of the simplest kind. The floors are covered by matting, upon which a rug or two is spread — a few cushions hung around the sides of the room often complete the furnishing. Oriental cushions on the floor — their beds
Consists of a quilt—which is rolled up during the day and spread out on the floor during the night.

The houses are warmed by charcoal burners in an open brazier, or Eastern wood pot, called a Mangal. The poor economize heat by placing the mangal in a hole in the floor surrounded by a large stone over which they hang quilts. When resting at home they poke their feet beneath the quilt and sit or lie on the floor radiating out from the mangal, as a centre, like the spokes of a wheel.

After an operation in cold weather, the patient was usually laid within his quilt upon the floor, his feet directed to the fire, and his head supported by a pillow.

The invariable custom of the people is to sleep in their clothes, the outer garments only being removed. The under-clothing is changed when they go to the bath—at longer or shorter intervals.
The difficulties that I had to contend with in conducting my operations were due chiefly to the following causes: Ignorance of the language; want of apparatus; lack of trained assistant, and of anything like systematic nursing. Circumstances which, with the exception of the first, were very much the same that might be expected in country practice.

From my ignorance of the Turkish language, at first absolute, it was often impossible to acquire an accurate knowledge of the patient’s history, or even of his actual condition. I was obliged to depend almost entirely upon objective signs in making my diagnosis, and was occasionally led into error. One erroneous diagnosis had serious consequences, and eventually cost the patient his right arm. (See Case III.) During the course of an operation too, it was sometimes very embarrassing to be unable to address intelligible directions to my assistants. In one of my earliest operations. (Case xiv)
when I thought that I had wounded the anterior tibia, I felt painfully helpless to
control a fatal issue; while with intelligent cooperation the danger from such an ac-
ident would have been very much less. Happily my fears were groundless as the
wound was not wounded.

As for appliances, I was fairly well supplied with instruments, as long as they
remained in good order. When one became
worn out for service, as happened to the
Nemen Spray produced, I had no means of
supplying the deficiency for many months.
There was no artisan in Anitab to whom
I could entrust even the setting of scalpels.
Everything of that nature I had to do myself.
The operating table I had to construct for the
occasion, as best I could. One or two boards,
or a door taken off its hinges, often served this
purpose, supported on two stools and cov-
ered with cushions and a waterproof cloth.
After the operation I allowed the patient to
lie upon the floor, according to the

method of taking refuge.

3. The want of trained assistants was a more serious difficulty at the outset especially. An operation became the more fatiguing as the labour could be less divided and distributed. I was obliged, for instance, to spring the wound, catch the vessels and tie them myself beside looking after the tray and helping myself to instruments as they were needed. An amount of work which in hospital would be divided between four persons. In such circumstances, formed the Edward system, when practicable, of especial value. Besides the additional labour and fatigue consequent upon the lack of assistance, the success of an operation was sometimes impaired by the insufficiency of an assistant to whom I had entrusted an important duty. In a lithotomy, the person to whom I had committed the management of the staff allowed the point to slip out of the bladder during the operation, to my very great embarrassment.
I had also to exercise some of his suspension over the administration of Chloroform—and I am glad to say that no accident occurred, although the duty of maintaining anaesthesia had to be intrusted to inexperienced dressers in nearly every case. I contented myself with repeating to them the simple and explicit directions laid down by Mr. Liston for the inhalation of Chloroform.

4: As regards the after treatment of the case, I was obliged to leave this very much in the hands of the patient's friends. I gave general directions to keep him quiet, but had no power to enforce my orders; and it was not uncommon for the room in which I left my patient, shortly after my departure, to be filled with friends and neighbours eager by discussing the operation—the chances of recovery &c. For the first few days after the operation I attended myself to the dressing of the wound; afterwards, except in Antiseptic cases, it was intrusted to a dresser.
Counterbalancing Advantages. I was
favoured however by certain circumstances
which, in my opinion, went far to outweigh
the disadvantage, under which I laboured.
The mental condition, habits and constitution
of the patient were favourable in the
highest degree. This manner of living
was simple, frugal and temperate. The
destructive effects of alcohol were never seen.
Their mental condition was rather apathetic
than excitable. They seemed to suffer little
of any form shock, and manifested hardly
any tendency to inflammatory reaction.
But probably the most favourable and
constant of all the favourable conditions
was an abundant supply of fresh air.
It was, in fact, impossible to exclude the air
from their dwellings, and the natural sys-
tem of ventilation was always efficient.
The benign influence of light was not so
uniformly secured. Many patients made good
recovery in almost utter darkness, although
opened only at the time of changing the dressing.
I offer these Clinical Notes conscious that, in many cases, they are very defective, and I plead as my apology, the circumstances under which they were taken. They were entirely without assistance of any kind—everything had to be observed and recorded by myself, often when I was much pressed by work. The notes were written as soon as possible after the operation, usually the same day, and, as far as the go, are accurate. It was impossible for me to make daily visits to my patients, and the result of my operations shows, I think, that such close attendance is not necessary.

In fact, the most defective part of my notes, the record of the patient's progress toward recovery, may serve most conclusively, from its very inaccuracy, to show how much the patient may be left to nature if ordinary precautions are observed—such as efficient drainage of wounds, non-irritating and non-foul-erible dressings, &c.
Amputations

Cases I - VI.
Case I

Amputation of an Arm.

In November 1876 a Kurdish peasant, about forty years of age, presented himself for advice. The anterior aspect of the left forearm was occupied almost entirely by a malignant ulcer, with thick, ragged edges, hard and resisting. The muscles of the forearm were exposed at the base of the ulcer. There was no Copeman's pus discharge. The fingers of the left hand were acutely and immovably flexed. The hand and arm were quite useless at the seat of severe pain. There was a moderate amount of constitutional disturbance, indicated by a quiet pulse, restlessness and slight pyrexia. In view of amputation of the limb, so that the patient would not succumb at the time but about six weeks afterward, the disease having progressed further and the pain being insupportable, the patient refused willing to submit to any treatment which promised relief to his sufferings.
Operation, Jan 3rd, 1877. Assisted by two or three American students. My distress! I amputated the limb just above the elbow. As the house in which the patient reside was very dark, the operation was performed in the open air. I had sent a folding table from my house on which the patient was laid. Chloroform was administered by an assistant. Haemorrhage during the operation was prevented by an Elastic Cord applied just below the anterior fold of the axilla. I performed the modified amputative amputation with skin flaps—sawing through the humerus just above the condylar eminences. The arteries were easily secured and tied with catgut while was cut short. Not more than an ounce of blood was lost. The wound was then causd by washed and the flap, stitched together with fine sutures. No drainage tube was used.

Progress The wound healed kindly. Sutures caused no irritation but a small collection of pus formed which had to be pressed out two or three times. Patient's general health improved from the
day of the operation. Simple dressings were applied throughout and changed only every second, third, or fourth day.

January 36th. Wound healed completely. Patient returned home cured, entirely free from pain, and in high spirits.

Remarks: At the time of operation, this patient was suffering from irritative fever, or a condition almost amounting to it. After the operation, he was laid on a quilt on the ground, in a small room which constituted the only apartment of a considerable family. His diet consisted of milk, boiled rice, coarse bread, cracked wheat. His recovery was rapid and uninterrupted from the day of the amputation, and occupied just twenty-three days.
Case II

Amputation of forearm - Shot wound.

Haji Mahomet, aged 25, was brought to my house April 26th, 1878. Five days previously he had blown off his left hand with a large pustule. The stump had been immersed in iodine, which had effectively arrested the haemorrhage, and had thus been preserved. On examining the limb of the hand was completely gone, nothing being left but the base of the metacarpal bone, which protruded, with some fragment of tendon, from the ragged surface of the stump, which was of a dirty grey colour. The skin about the wrist had a scalded, reddened appearance. Patient was suffering somewhat from inflammatory fever.

Operation. I proceeded to amputate through the forearm then and there. Patient was laid on a table and chloroformed. I applied a tourniquet to the middle of the upper arm, then shaped two equal, square flaps of skin, from front and back of the forearm, as
(Case II)

Low down as I could get uninjured tissues. Re-
fecting these, I divided the muscles from about
the junction of the middle third of the
forearm. I ligatured four or five arteries
with catgut, before relaxing the tourniquet,
and one which spouted afterwards. There was
hardly any hemorrhage. The surface of
the wound was well washed with Carbolic
Acid Solution; the flaps accurately adjusted to
each other and stitched with Carbolised silk.
A drainage tube was introduced between them;
the wound was again syringed out with
Carbolic Acid Solution (1:40), and a gauge
 dressing applied.

The patient was then taken home on horse-
back, a distance of half a mile or so.

Progress. Although the attempt to secure
an aseptic condition of the wound, by the
antiseptic method I have described, was not
successful, the progress of the case was
very satisfactory. I left stitches twelve
days after the operation and was not
(Case III)

able, therefore, to observe the case to its termination; but I have been informed that the wound healed quickly without any symptoms. Adhesive of Saracino lint was substituted for the gauze after the first day.

Remarks. Under ordinary circumstances, it might not be deemed justifiable to perform such an operation at a distance from the patient's home, and send him away immediately afterward. But, owing to my impending departure, the demands upon my time were so pressing that I was obliged either to operate immediately or to decline to engage with the case. Happily the results justified the risk encountered. Proper antiseptic precautions could not be observed, on account of the failure of the spray-producing apparatus, which had been broken some time before.
Case III

Fractured Brachial Arteries - Old Operation
Secondary Haemorrhage - Amputation

Karmuzu Ogbo Hoeff, aged 25, presented himself for advice and treatment on the 24th July, 1877, at Keilan, a mountain village, at which he was spending the summer. There was a firm, lobulated swelling, the size of a small prune, in front of the right elbow. It was distinctly circumscribed and about the consistence of an adherent tumour. There was no pulsation whatever; connected with the skin over the tumour was freely movable, and I failed, after a careful search, to discover any cutaneous or mural of a wound. I could not obtain any intelligible history of the growth of the swelling, no efficient interpreter being within reach. The patient was anxious to have the growth removed, as it gave rise to pain and inconvenience, and impeded the action of the elbow joint.
Operation July 24th. A room having been prepared in my house for the reception of the patient, he was laid on a table and brought under the influence of chloroform. The only assistance I could obtain was that of my cook and dispensed. I applied an elastic band to the middle of the upper arm; and then not being certain of the diagnosis, made an exploratory incision into the tumour, and found that it contained blood clot only. Having removed the clot, I introduced a finger and turned out the coagulum, which was friable, of a brownish grey colour at the circumference, and darker at the centre. This procedure left a cavity with smooth glistening sides, exactly like the interior of a true haemorrhoidal fistula, at the bottom of which I detecet a small orifice - the size of a large needle. Into this hole I introduced the point of a No. 4 catheter, and found that it was within the Brachial Artery. Hence, perhaps, we entered prevented by the elastic band.
Old method facing probe

Use a sharp, fine needle bad
Case III.

Using the point of the catheter as a guide to the vessel, I passed a strong catgut ligature beneath it, about half an inch below the opening into the sac. This was effected by means of a haemorrhaging needle, the point of which was pressed through the wall of the sac before and after it was passed beneath the artery, as is shown in the diagram opposite. This ligature was tied firmly with a reef knot, and the ends cut short. Then, passing the guide up the artery, I applied a second ligature of catgut, in the same manner, a little above the wound in the vessel, that it and relaxed the elastic cord. A short gush of arterial blood took place through the orifice in the vessel, so I applied a tourniquet to the arm which arrested the haemorrhage.

I introduced a director into the artery upon which I slit up the anterior surface until the upper ligature was divided. Then, raising the artery, I succeeded in ascertaining the position of.
Case III.

the Median Nerve at a deeper level by the tips of my left thumb and forefinger. Resting great care I managed to pass a sharp skin, armed with a fresh cut to ligature, between the artery and nerve, and after tying it securely, and relaxing the tourniquet, formed to my great satisfaction that no harm whatever followed.

The size of the wound was intimately blended with the surrounding tissue and could not be detached away. The edges of the wound were approximated by a few sutures, and a dressing was applied until morning. Not more than a tablespoonful of blood was lost during the operation.

About two hours after the operation, pain could be felt in the radial artery at the wrist. Wound dressed with Boracic Lin.  

Cae. III.

July 21st. Patient comfortable. £1.00. Arm swollen but not red. Ves. £1.10s.


July 28th. Warm's suppuration freely. Slight pain above the elbow. Patient went out against my orders. Dressed twice daily with carbolic acid. £1.10s. 8.

July 29th to August 3rd. The patient, contrary to my advice persisted in leaving hospital and going to his shop. He came twice everyday to have his wound dressed, but carried on his business as usual although I warned him of the extreme danger he exposed himself to.

All went on well however until

August 4th. The 12th day after the operation, when I observed a little blood on the dressing. I ordered him to be done at once and to lie for his bed. Instead of doing so he went home, and in the evening he was awakened by the occurrence of profuse haemorrhage from the wound. He ran and ran to my house arriving at 8 p.m.

I removed the bandages and elevated the
Case III.

Limb, which arrested the haemorrhage temporarily. At 10 p.m., after a fit of sneezing, blood gushed out again rapidly. I sponged out the cavity and applied compression by means of two sponges and a bandage, which arrested the haemorrhage completely.

Aug. 5th. Patient rather weak from loss of blood, complains of no pain.

Aug. 6th. This morning the sponges were very wet and removed them carefully. No haemorrhage occurred until 4 p.m. When it came on again with great force, I put the patient under chloroform and enlarged the wound but failed to find the bleeding point in the large amount of consolidated lymph resulting from the previous operation.

Secondary Operation. Under the same circumstance. I proceeded at once to amputate the limb, with the same assistant as in the former operation. I cut flaps of skin from the anterior posterior aspect of the limb, and severed through the humerus just above the condyle, having divided the muscle at the same level.
FIG 2. Natural size.
Case III

Numerous vessels required ligature as the part was preternaturally vascular and the arteries, instead of within the tough lymph recently effused, were prevented from retracting properly. The flaps were stitched with iron wire. Patient bore the operation well. Eviscerated wound dressing applied.

On dissecting the limb I found the arteries in the condition indicated by the accompanying diagram (Fig 2). There was a large hole just at the bifurcation of the brachial artery. No trace of the ligatures could be found. There were two radial recurrent arteries, the loop of which was given off just opposite to the opening in the brachial, the second quarter of an inch lower down.

The ulnar recurrent arteries arose at a distance of one half and three quarters of an inch respectively from the origin of the ulna. The anterior superior ulnarnous came off as a common trunk from the ulna. There was no posterior ulnarnous recurrent.

Considering the position of the opening...
in the artery, and of the anastomosing branches, together with the fact that the vessels lay at a considerable depth, imbedded more or less in recent lymph instead of in their natural situations: — it will, I think, be admitted that no efficient means of arresting the hemorrhage short of amputation, could be resorted to.

Further Progress. August 7th. Patient restless.
1. To 02.6. Complaint of thirst. No pain.
2. Complaint of pain. To 03. 0. Have 3/4 dusk.

August. Sept well. 12th. 0/110.4. Wound discharging.

Sept 24th. Healing progressed rather slowly but there almost complete. Latent general health is good and he has returned to his shop.

May 12th. 1878. Patient is quite well and appears to be resigned to the loss of his arm.

Remarks. This case is, think, instructive in many ways. In the first place a false aneurism was mistaken for a tumor.
(Case III)

The only excuse I can offer for the error in diagnosis is that I could not obtain a natural history of the origin and growth of the swelling, on account of my inability to communicate directly with the patient in his own language. The little that I could gather before proceeding to operate was of a totally misleading character. Had I diagnosed the case correctly, I am in doubt whether I should have operated in the manner described, but once having seized the case, I had no choice but to proceed. The method of using the point of a tonsil or bougie as a guide to the artery, I learned from seeing Mr. Amandeau adopt the same procedure in an operation for the cure of an aneurysm of the common femoral artery, performed in the Royal Infirmary in the month of January 1876.

The hemorrhage was undoubtedly due to occlusion of the artery at the seat of the lower ligature which happened unfortunately to be close to two large anastomosing branches, the radial recurrents, and within an inch of one ulnar recurrent. In fact, from the position of these vessels, it was
impossible that a haemostatic thrombus could form below the ligature, and the occurrence of haemorrhage became almost a matter of course; favoured as it was by the excesesingly impotent conduct of the patient. I still believe that the artery would not have given way if the wound had been kept free from postoperative irritation. Dr. Leets has applied a ligature to the Common Femoral trunk in its continuity, closed the origin of the Profunda, with a successful result, thus demonstrating effectually that ulceration of the Arterial Coats and separa-
tion of the ligature does not necessarily occur under properly conducted aseptic treatment. So, therefore, if the wound could have been kept aseptic, in this case, there is good reason to hope that the ligature would not have caused ulceration of the Arterial Coats, but would rather have served to strengthen these at the ligature point.

The operation, however, was performed at a mountain village where there was without
any antiseptic appliances, and the un-
toward result may contribute toward
establishing the truth, now I suppose
universally admitted, that the antiseptic
system enhances greatly the safety with
which a ligation may be applied to the
cause of a large artery. The operator
can never be sure of the exact position
of branches, and it is no doubt an ad-
vantange to be able to disregard them.
Case IV.

Deformity of Foot. Amputation at Ankle.

Mairam - an Armenian girl, age 14.

History: At nine months of age the right foot was severely burned. The anterior part of the foot was destroyed outright. Healing was very slow, and the stump of the foot never became fully developed.

Status: Patient is small, apparently not more than ten years of age. The right foot is small and much arched. There is no appearance of toes. The weight of the body is borne on the calcaneus head of the metatarsal bone. The anterior part of the stump is painful and tender on pressure over the bone. This foot is hardly used at all as a proponent.

Operation: April 20th. I performed Syme's amputation without difficulty. Nearly the Articular Surface of the Tibia Tibiale were removed. The vessels were tied with catgut ligature which were left long and brought out through a "button hole" in the back of the flap. A few sutures of silver wire were used to keep
Nothing new.

Improvise cradle.
the flap in position. Warming was applied to the stump and it was left open to the air protected by an improvised cradle made of a very firm teak stool.

Progress. May 1st. Patient complains of pain. There has been some oozing of blood. Tend to the catgut drains is acting efficiently there is no accumulation at the stump, which looks and feels well. No constitutional disturbance.

May 2nd. Patient comfortable. Stump took very well.

May 3rd. Removed the stitches, and the drain came away. Supported the heel flap by two long strips of the horse plant.

May 10th. Wounds almost healed. Patient hopeful about quite free from his former pain.

The result of this operation was eminently satisfactory. A firm, well-shaped stump was obtained with which the patient could walk and jump, and when it was covered with a shoe, much less deformity was apparent than before the operation.
Case V.

Malignant Disease of Foot. Amputation.

Mustapha - aged 60 - a village - applied for advice March 23rd 1877.

History: Forty years ago patient was subjected to the punishment of the bastinado, after which a sore was left on the sole of the left foot which never healed. Six months ago he noticed a hard, painful swelling on the dorsum of this foot about the first metatarsal space. It increased rapidly in size and soon began to ulcerate.

Present Condition: There is a large, purging, cancerous ulcer in this region which opens both on the dorsum and on the sole of the foot. There is a copious and very offensive discharge. Patient suffers great pain.

I advised immediate amputation, which the patient is to take into consideration.

Operation - May 20th. The patient has reluctantly prepared to submit to the operation. The sore is much larger and now involves the great part of the anterior portion of the foot.
(Case V.)

The operation was performed in a hovel in a remote corner of Ankat. An operating table was contrived of stools and cushions. I was assisted by an Armenian apothecary and one or two students.

Patient being chloroformed, I elevated the limb for a few minutes and applied an elastic cord to the leg. I performed Syme's amputation without difficulty, cutting the heel flap first from the inner to the outer side.

I disarticulated before removing with the saw the end of the tibia & fibula. The three largest arteries were secured before the elastic cord was released so that the haemorrhage was slight, a few vessels were tied subsequently. The ligatures were left long and brought out through a button hole at the flap to act as a fingerless drain.

The heel flap was adjusted and secured in position by five sutures, and a drainage tube was passed through the wound at the base of the flap.
Progress.

May 3rd - I nursed the wound. There has been considerable oozing but no accumulation within the cavity of the wound. Patient is entirely free from pain. Draining of trachea tube applied.

May 7th - Removed the stitches. Shin looks extremely well.

May 14th - The wound is almost healed, leaving a caputatum stump. Except on the date noted the dressing has been managed by the patient's friends. Shortly afterwards he left hospital for his home and never saw him again.
Case VI.

Diaries of the Tourn. - Amputation of Foot.

Shankir - a Mohammedan woman aged 30, applied for treatment early in April 1828.

Effect & Present Condition. Patient has suffered from disease in the right foot for a long time and has been unable to walk with it for a number of years. She can tell nothing more definite. The complaints of severe and almost constant pain. There is a tumour about the middle of the dorsum from which there is an abundant fetid discharge. A probe introduced through the tumour, enters into a cavity of soft, cavernous bone. It was evident that no partial amputation short of Chopart's would suffice to remove the disease, and, having been taught that Syne's Amputation yields a more serviceable limb than Chopart's, I determined to remove the whole foot.

Operation. April 6th. The patient having been chloroformed, I applied the clamps to the middle of the leg, and performed...
the amputation with the assistance of two doctors. As the patient was in extremity, I did the operation in the open air. I cut the heel flap first, from without inward, and reflected it as far as the line of the heel. Then turning the knife across the front of the joint, I disarticulated without difficulty, cut through the tendo-achillis, from above downward, close to its centre, and removed the foot. The malleoli and away that else was removed with the saw from the bones of the leg. Thus far the operation was quite bloodless. The dorsal artery of the foot and the two plantar arteries were readily found and tied with catgut. One more small vessel was secured after the constricting cord was removed. The cavity was washed out with cold water, the heel flap was carefully approximating. Four silk suture were inserted between them, three Juni's to keep the suture from becoming inverted. Drainage tubes had been forgotten. The posterior
angles of the wound were left pretty open. The abdomen was dressed with strips of wet bore lint applied so as to relieve tension on the stitches, and to exert a moderate amount of pressure with a view of diminishing the size of the cavity. The patient was then laid on the earthy floor of her house, the limb supported on a pillow. The gravis of opium prescribed.

Progress. The patient enjoyed a rapid and uninterrupted recovery. Healing was complete in about three weeks, and she was entirely free from the pain which had tormented her for months. The dressing was carried out satisfyingly by a native attendant or dresser.
Excisions

Cases VII - XI
Case VII.

Degeneration of the Elbow Joint. Excision

An Armenian Woman, married - ages 35 - came for advice February 1876.

History of present complaint, she has suffered from disease of the right elbow, attested with much pain for more than two years. The joint is now swollen, relaxed and useless, the seat of great pain. There are several sinuses on the joint fractures aspect which communicate directly with diseased bone. The patient is suffering a considerable amount of constitutional disturbance - sleeps and eats sadly.

Operation, Feb 6th. Attempt. Assisted by an American missionary - a native physician and a barber. I excised the diseased joint. The patient being chloroformed, I made a line incision over the back of the joint about five inches in length, the middle of the incision being on the tip of the olecranon. I cleared the articular sets of the bones without difficulty, keeping the edge of the knife...
close to the line. Saw nothing of the ulna nerve. Disarticulation was easy, owing to the disorganized state of the joint. The heads of the radius and ulna, and two-thirds from the olecranon were removed with the saw, an all amounting to two inches of bone. Only one vessel required ligature and was secured with catgut. The wound was washed with a solution of Chloride of lime (50 grains to the ounce). The edges were stitched together with silver wire - a drainage tube inserted into the cavity left depending from the lower end. Pads of lint were applied with a bandage to the front & side of the limb. No dressing to the wound. Patient was laid on her couch & took a solution of Morphine administered by the nurse. Patient has been rather restless. To have forty drops of Opium.

February. Temperature 101.6. Doused with carbolic ac.
Feb 12th. Removed all the stitches.

A few days afterwards I left the patient for more than a year, but the case did very well.
Nov 1st 1876. Twenty one months later, patient came to report herself. She has a strong.

force, invariable and quite free from pain.
The movements of flexion, between pronation
and supination are all good, and she can
use the right arm fully as well as the left.

This gratifying result has been obtained
without any careful after treatment on the
part of the surgeon. The duty of main-

taining passive movements from the time
the wound healed had to be restricted to the

patient and her friends, and fortunately
it was discharged much more faithfully
than is usually the case in such circumstances.

May 1877. The patient, who has lost her
husband from Cholera in the summer of 1876,
was married a second time. This shows
conclusively that she was quite competent.
To vindicate the part of performing duties of an oriental housekeeper, and had entirely regained the status of a useful member of society.

Remarks. This case is interesting chiefly as having been the first case of resection of a joint ever performed in Antwerp, and probably the first operation of any magnitude, except Lithotomy, within the memory of the existing generation. Consequently it attracted a great deal of attention there. The operation, in itself, presents nothing worthy of note, beyond the facility with which it was accomplished.

A simple ordinary case, showing how easily a wound may be treated without cumbersome dressings.
Case VIII

Relatious Degeneration of the Elbow - Excision

Grecs - An Armenian boy - aged 11 - presents himself March 1878.

History: Present condition. He has been suffering from pain and swelling in the left elbow for a year and a half. The joint is now much swollen, hot, very painful on the least movement, and tender on pressure. The skin is unbroken and although the tissues feel somewhat puffy, there is no evidence of fluid within the joint.

Operation. March 15th. Patient lying under chloroform. Tappied and elastic. Cord to the arm and across the joint. Disarticulation was easy as the ligaments were disorganized, and there was no ankylosis. About two inches of bone was removed with the saw. The synovial membrane was much thickened and gelatinous. Upon removing the cartilage, there was considerable oozing from the inflammatory vascular synovial membrane, and
The word "membrane" and "membranous" are used in the text. The term "membrane" refers to a thin layer of tissue that forms the boundary between different body compartments. It can be found in various parts of the body, such as the lining of the digestive tract or the lungs. "Membranous" describes something that is membrane-like, thin, and flexible. The text discusses various aspects related to membranes and their roles in maintaining the health of the body.
Progress. The day after the operation the patient was comfortable, and from that time completely free from the pain he had suffered in the joint. There was absolutely no inflammatory reaction. The antiseptic dressing was changed under a stream of 1-4 ointion on the following date: March 16th 19th 21st 23rd 26th 29th.

The wound remains perfectly aseptic throughout.

April 24th. Seventeen days after the operation, I removed the antiseptic dressing, the wound being almost entirely healed. I placed the arm in a sling and advised exercise in the open air.

For the next month the patient came periodically to my house to have the limb put through the necessary movements. I have not seen him since May 1878, but I have heard that he has a useful, movable arm.
Case IX

Ankylosis of Elbow

Olanna Adams, an American girl, aged 10, applied for treatment March 1878.

History and Present Condition. Suffered years ago from small pox in which the left elbow became the seat of supplicative inflammation. It is now bent nearly to a right angle and immovably fixed. There is an open sinus over the outer side of the olecranon, and the skin is adherent to the bone at two points, on the outer and posterior side of the joint. at the site of old sinuses.

Operation March 7th. Patient being under chloroform, applied elastic cord to the upper arm, and excised the joint with the assistance of Dr. Lewis of Trenton. Made a single longitudinal incision four inches long, as recommended by Dr. Lewis. Directed off the soft parts, first on the outer side, then on the inner side of the joint. Cutting along on the bone, divided the lateral ligaments, were found that I could not disarticulate.
(Case IX)

On account of fibrous ankylosis between the humerus and ulna within the joint, I cut through the olecranon with bone forceps and removed it, divided the adhesions with the knife, and was then able to clear the articular end of radius and ulna. I cut them off just below the coronoïs process, sawing from before backwards with a finger saw. The end of the humerus was sawn off just above the olecranon fora. Upon removing the cry but slight crying occurs. No ligature was required. A drainage tube was inserted into the cavity and the wound stitched up with Carlisle's silk. It was dressed with an antiseptic and two lateral pads of dry Bors lint, and the limb was supported on a pillow. I ordered half a grain of opium, to be repeated at night.

Progress. March 10. Patient has slept well. is comfortable and feels hungry. Changed the pad. The brachial acid dressing was changed every second day. A moderate amount
of suppuration occurred. The patient was
burning about in a fortnight, and the
wound was healing in about three weeks.
Range movement was regularly practiced
from this time forward in spite of
much opposition on the part of the nurses.
Little patient, and when she was discharged
in May 1878, there was good promise
of a strong movable elbow.

Note. This patient's recovery took place in
the corner of a hut of the poorest
description. She never had a bad symptom.
Case X

Osteous Ankylosis of both Elbows.


History: Present condition. Ten years ago he suffered from an attack of confluent smallpox in which both elbows were affected. The result has been to leave them both firmly ankylosed in a semi-flexed position, which greatly impairs the usefulness of the arms. The patient is deeply pitted on the face, and very small for his age.

I determined to reset the joints one at a time, in the hope of increasing the usefulness of the arms.

Operation, March 13th. Patient being chloroformed and elastic cords applied to the arm. Excise the right joint, with the help of my students. I made a single longitudinal section and exposed the back of the joint in the usual way, but when I attempted to open the joint I found it could not be done. Accordingly, I cut through the
(Case X)

Radius and Ulna at the usual situation, with the bone shims, and directed up the joint to be removed from below, cutting very carefully on the bone. When the soft parts were cleared away to a sufficient extent, I sawed through the humerus and removed the fragments of the three bones all in one piece. There was no hemorrhage to speak of after placing the cord. The cavity was washed out with solution of Chloroform Ether. Stitches up with carbolic acid over a drain and tube - syringes out with aqueous solution of carbolic acid 1% and covered with Calico's gauge.

The evening a grain to half of Opium was given as there was considerable pain.

Progress: The wound remained aseptic for five days under the very imperfect method in which the draining was conducted. Drainage was effective. Patient comfortable. March 17th: Boric acid substituted for gauze. March 21st: Wound gaping somewhat exposing
some bad smelling sloughs. I strapped it
with three strips of adhesive plaster.
March 28th. The wound is now quite clean and
nearly healed. The patient has been walk-
ing about in the market for two days.
April 4th. The patient came to my house —
the wound is completely healed — I moved
the limb pretty freely in all directions,
since he had allowed it to grow rather
stiffer than was desirable. This was rather
painful at the time.

At the end of April the patient could
move the arm by its own muscle al-
the new joint, and there is no doubt that
he will have a freely movable elbow
if he follows faithfully the directions with
which I left him.
Case XI

Oleous Ankylosis of Elbow - the result of Fracture.

Saralsh - an American blacksmith, aged 19.
Applied March 1878 —

History - has twice suffered fracture of the bones about the right elbow.

Present condition - the joint is firmly ankylosed at an obtuse angle, so that power of flexion and extension is completely lost. There is, however, a certain amount of pronation and supination possible, the radius not being involved. The patient is extremely anxious of undergoing an operation which will result in giving him a movable joint.

Operation March 22nd - Patient being chloroformed, saphir elastic band to arm and cut down upon the joint by a longitudinal fascia incision for a fine inch long. As the bones were much thickened and enlarged, it was with considerable difficulty that I reflected the tissue, as far as the inside and outer margins of the condyle, this was at last effected without injuring any sin-
Case XI.

Supine structure. I then applied the saw to the back of the olecranon, and sawed rather more than half through the bone mass, after which I was able to break through the rest. It was then easy to feel the bone above or below to the extent required to be removed, but the section of these was laborious owing to the density of the new bone and the small size of the saw. On relaxing the cord, bloody ooze pretty freely for some time, but only a few small vessels could be distinguished and seemed. The cavity was washed out with cold water and afterwards with aqueous solution of carbolic acid (1 to 40). The wound was stitched over a drainage tube, cleaned with pads of antiseptic gauze, applied as to rest. Considerable compression — the limb was supported on a pillow. The operation occupied about one hour. I was assisted by two native students only. Progress. The wound kept open for six days, and after that it was closed.
Case XI

with pads of horse hair. On the 12th day April 3rd patient walked up to my house, very impudently, and the refusal was followed by an attack of syncope of the arms, which retarded his recovery very materially. When I saw him last the limb was very freely movable at the elbow.

The bone removed (See Specimen) shows with the very complete union which had occurred between the humerus and the olecranon. In the surface of the section no line of demarcation between them can be made out. The maceration of this specimen had to be entrusted to a native assistant, and consequently the preparation is not a good one. Still it serves as a good illustration of Osseous ankylosis, the result of injury.
Operations for the Radical Cure of Hernia

Cases XII XIII
Case XII.

Congenital Inguinal Hernia - Treated by stitching the neck of the sac.

Hrithor. An Armenian had aged 20 - applied for treatment March 1877.

Present condition. He suffers from congenital Inguinal Hernia on both sides. Each hernia descends into the Scrotum and attains a large size; he is unable to keep them up by any tucks which he can procure in String or sfiggo. They are readily reducible. The External Abdominal ring on one side admits the tip of two fingers, that on the other side, three fingers almost.

The patient is unable to work and cannot walk beyond a short distance. He is intuito upon being relieved from his present condition by operation; and having considered the matter I determine to operate in the manner that I had seen Mr. Annandale do in a somewhat similar case in January 1876.
(Case XII)

First Operation, March 29th, on the right side.

The patient was chloroformed and placed on a table. A cloud of Carbolic spray was directed over the right groin, the skin of which had been previously well washed with Carbolic water (1/50). I made an incision three inches in length over the neck of the sac, in the direction of the inguinal canal. I cut through the different coverings one by one, securing vessels with fine clamps as they were divided, until the sac was reached. Into the sac I made a small puncture, and then shot it on a direct or sufficiently to admit the point of my finger. Then, having satisfied myself that the sac was empty, I passed a double ligature through the neck from behind forwards, by means of a haemorrhage needle. The ligature was of strong Carbolic catgut. Having withdrawn the needle, I cut the loop and tied the two halves together as tightly as possible in the manner indicated in the diagrams opposite.
I also drew together the apex of the external abdominal ring by two sutures of strong catgut passed through the pillars and thus greatly reduced the size of the orifice. A drainage tube was inserted into the wound and the edge brought together with four stitches of Catgut. The wound was dressed with antiseptic gauge and a sponge compress. The whole operation and dressing were conducted under a cloud of carbolic spray from a steam spray producer.

Progress. March 31st. Patient complains of a little weakness which passed away after the dressing was changed under the spray. The wound looks well and is efficiently drained.


Patient is entirely free from pain or tenderness and wishes to sit up. Drainage tube removed.

April 5th. Dressing changed - wound quite scabbed.

April 9th. Dressing changed. Removed the stitches.
April 12th. Opeced as before.
April 19th. The antiseptic dressing was discontinued as the wound was quite healed except at two little granulating points which were touched with bichrome. In all seven antiseptic dressings have been used in the space of three weeks.

The patient has never shown the slightest sign of inflammatory action. The wound healed without a drop of pus, and there was never any tenderness even about it.

Second Operation April 29th. I operated in a similar manner on the left side, under the spray with antiseptic precautions. I cut down upon the sac with rather a smaller incision than in the former operation. Sutured it, introduced a finger, and then ligatured the neck with strong catgut in the manner indicated in the diagram.
(Case XII)

The external abdominal ring was very large and gaping. With some difficulty I approximated the pubis, by means of thick catgut suture passed with a haemorrhage needle, so as nearly to close the orifice. I found it convenient to grasp the tendinous pillar with a pair of catch forceps before piercing it with the needle. The wound in the skin was stitched with carbolic silk. I tied to four strands of catgut, brought out at the lower end of the wound, to accomplish the drainage. Applied protective and gauge dressing.

Progress. April 27th: Drains were changed. Very slight discharge. No accumulation within the cavity of the wound.

April 29th: The wound has healed entirely by first intention. There is not the slightest redness or tension. I removed all the stitches and put the catgut drain flush with the surface. As a precautionary measure I applied another gauge dressing and kept it on for a week longer.
Feb. 20th 1878—Ten months later. The patient has been going about his work as a student during the past nine months. On a careful examination I could detect no appearance of any return of either hernia. The patient is wearing a double tunic for extra security but he intends soon to leave it off. Before the operation he could not keep up either hernia by a tunic or any other means.

He now declares himself to be "quite well and very happy."

Remarks. Without antiseptic precautions thoroughly carried out, I should not have ventured to open twice into the peritoneal cavity as in these operations, for the relief of a condition not directly dangerous to life. But, knowing from previous observation that how the healthy peritoneum may be handled pretty freely if it is protected from the irritation of gravidity, I adopted the method of
Operating have described believing it to be the most rational which has yet been proposed for the radical cure of Hernia. It presents the advantage of dealing direct with the neck of the sac and the opening in the abdominal wall; and it enables the surgeon to see and manipulate the parts with the utmost precision. The immediate result of the operation is always satisfactory for the opening which permitted the hernia to pass is thoroughly "sewed up." A possible source of disappointment, is that the large sutures are so absolutely unirritating that there is a danger of their being removed by absorption before the change effected has become permanent. In the above case, up to the present date (April 1879) there has been no appearance of the return of either hernia. I am still in communication with the patient, and have good hopes that the ultimate result of the operation will be satisfactory.
Recent Oblique Inguinal Hernia - treated by closing the External Abdominal Ring with Suture

Kara - An Armenian aged 35 - has suffered for two years from an oblique inguinal hernia on the right side. It is sometimes as large as the closed fist, but it has not as yet descended into the Scrotum. The hernia is readily reducible, but the patient cannot keep it up with any appliance which he has been able to procure, and he is very desirous of being permanently cured by operation. The External Abdominal Ring admits the end of three fingers - the hernia generally reduces itself when the patient lies on his back, and comes down when he sits or stands - or upon the slightest exertion from within.

Operation February 21st 1878. The patient being chloroformed, I reduced the hernia and cut down upon the External Abdominal
ring under the carbolic spray. The incision was rather less than three inches in length, and in the direction of the seminal canal. The subcutaneous fat was half an inch thick. Vessels were secured, they were divided. Having exposed the "pillars," the peritoneal line came into view passing down into the peritoneum through the widely dilated ring. There was no appearance of any sac. Evidently the sac had not become "developed" (see Holmes Surgery, vol. iv, p. 659) and had been reduced along with the gut. Under these circumstances I merely secured up the external abdominal ring, so as to reduce it to somewhat of its normal size. For this purpose I used the interrupted suture of strong catgut, passed deeply through the aponeurosis by means of a hemorrhage needle. Three stitches, firmly tightened, sufficed to close the opening so that it would lightly
admit the joint of the little finger. A small bunch of horse hair was introduced into the bottom of the wound, to act as a drain, and brought out at the lower end. The wound in the skin was then closed with carbolic acid sutures. A gauze dressing was applied over a sponge with pads of wool thickness to guard against dust from the perineum.

The operation occupied about an hour. It was assisted by Dr. Sunny, M.D. and two of my pupils. I ordered one grain of opium to be repeated at night.

Progress. Feb 22d. Patient comfortable, dressing not changed owing to the spray machine having got out of order.

Feb 23d. Dressing changed under the spray. Wound acute. The sponge has absorbed the discharge so perfectly that the cap for dressing is quite clean. There is no abdominal pain or tenderness.
Feb 26th. Patient complained of constipation which was relieved by an enema. Dressing changed and found quite sweet. About half a drachm of pus was squeezed from the deep part of the wound. The baschet drain had been acting imperfectly and was rearranged.

March 1st. Dressing changed again. Sweet. The drain had disappeared within the wound; I extracted it altogether, removed one stitch, squeezed out a drop or two of cloudy pus. Patient continues very comfortable.

March 6th. The dressing was changed again. The wound is now quite superficial. A final dressing of gauze was applied and kept on for a week. When removed, the healing process was complete.

Had the patient under observation for two months longer, during which time he wore a spine bandage to support the recently healing part. There seemed to be no indication of a return of the hernia.
Excisions of Tumours.

Cases XIV - XXIV
Case XIV

Adenoid Tumour of the Breast.


History & Present: For eight years a tumour has been growing on the outer side of the left breast. At first it caused a dull pain for unevenness, but lately she has complained of shooting pains in the chest and down the left arm. At present there is a freely movable, calcified tumour in the subcutaneous tissue external to the left breast. It is somewhat larger and flatter than the closed fist. One node extends upward into the axilla. The skin is not involved.

Operation Feb. 6th. Chloroform was administered by an American Missionary and the patient took it badly, so that my attention was frequently diverted during the operation to the exhibition of the anaesthetist. With the further assistance of her Arman...
no mention of suppoled wound aurilary ven
referred to in interjection.
(Case xiv)

...ears who knew not a word of English, I directed put the tumour... The dissection was easy... the... The most of the nutrient vessels extend the deep... surface of the tumour in a lasso, and I secured them all by a common ligature... One or two vessels in the apex bleed rather pro... freely, and had some difficulty in securing... they owing to the not lack of skilled assistant... They were at last... effective ligature with catgut... The wound was then... closed with stitch of silver wire... a drainage... tube placed at the lower end, and a sponge... applied as a dressing... to exert compression from behind, and obliterate the cavity... About half an ounce of bromide was given... after the operation... Voice: Pulse rather weak... It has four drops... of Spiritue of Opium... Progress: 6th Day: Patient quiet, complains of... thirst. Pulse quick, but strong. Temperature 103...
(Case XIV)

Worms looks well - Ordered milk milk and
Hemming and Acorn - 1/4 every 2 hours.

Vom. - Complaint of thirst and headache - Pulse 140.
Temperature 102.5 - 3 hour Hemming and Acorn 1/4
and dilute Hydrocyanic Acid 1/2 every half hour.

Feb 8. Patient basic, has slept well - Temp. 100.2
Stop mewing.

Worms looks very well - No change slight - I
remove the drainage tube - Dressed with dry lint.


Feb 10th. Suture removed and strapping applied. Suppuration pretty free.

Feb 11th. Sore dress with carbolic oil - I left
Antab on the 13th, and have no further note
of the case until:

Nov 24th 1876. Patient presented herself quite well.
She has a child six months old and an
abundant supply of milk from both breasts.
Case XV

Adenous Tumour near the Parotid Gland.

Napoli Jorj - an Armenian aged 20.

Applied for advice March 1877.

Kleptom & Parotid glandation. He has observered for
seven years a swelling immediately below the
lobe of the right ear, and has tried many
internal & external remedies to discur it
without success. There is now a circums-
scriptive firm tumour, in the region, about
the size of a Chestnut, not continuous with
the Parotid gland. There is a small, movable
subcutaneous, and a little lump on the Parotid.
The tumour is freely movable - the skin is
not adherent to it. I advise its removal.

Operation April 25. Patient being under
chloroform, I dissected out the tumour
without much difficulty, stopping to leave
bleeding vessels as they sprouted. The
region being very vascular, and the
drains at my disposal any imperfect,
it took a long time to arrest the haemorrhage.
(Case xv)

completed. All the rents that were made were then filled with catgut, but pretty free bleeding still took place into the cavity of the wound. Accordingly after inserting one suture of wire, I filled the cavity with a piece of sponge and applied a larger sponge as an external dressing, so as to exert a moderate amount of compression. Drainage is extirpated by four thick strands of catgut, which were used as ligatures at the bottom of the wound, and, being lifted and brought out at its lower angle.

April 25. The sponges were removed. The wound is very clean and perfectly dry. The dressings daily with Boracic Lint.

April 9th. Wound is suppurating freely. Removed the sutures. There is no pain or uneasiness. Disagery — few accumulations within the cavity.

April 17th. The wound is entirely healed, and patient has returned to work. The catgut drain answered its purpose very well. The external Kan dopped off in about two days —
Case XVI

Large Fibro-cellular Tumour in the Parotid and Submaxillary Regions.

Egria of Antwerp, a Jew, aged 35.

Applied for relief October 1871.

History and Present Condition: The patient states that a tumour has been growing at the left side of his face and neck for ten years. At present there is a firm, moderately soft and circumscribed tumour situated over the left angle of the lower jaw, projecting forwards and backwards. It is pretty firmly movable. Not attached to bone. It reaches from the lobe of the ear for four inches downwards. There is apparently an ascendent growth of the same nature in the submaxillary space about the size of a pigeon's egg. The tumour has been growing rather rapidly lately.

Operation October 26th. Assisted by an American physician and a native doctor. Proceeded...
Shows want of knowledge of limitation of simple encapsulated growths.
(Case XVI)

to remove the tumour. After the patient was fully under the influence of chloroform, I cut down upon the growth with a straight incision from the ear to its lower margin. I made a second incision at right angle to the first, and extending forward out the face. By means of these I was able to expose the superficial surface of the tumour freely, and found that it lay in a thin delicate capsule quite distinct from the surrounding tissue. Tissues were torn or they were divided. I carried on the deeper dissection carefully using fingers and forceps much more than the knife, and I found, rather to my dismay, that there was a root or process of the tumour extending inward below the angle of the jaw as far as the entire length of my forefinger. I almost despaired of directing out this root when it slipped out of my grasp quite easily. Alas! each of vessels entered the tumour at its upper end...
included within a common ligature of string. 

And before dividing. After this the entire growth was readily removed without any further hemorrhage. It was then seen that what has appeared to be a second tumour in the submaxillary space was only a portion of one single growth which had been much the shape and size roughly indicated by the diagram in outline opposite. A is the upper end at which the nutrient vessels entered. B is the portion which projected in the submaxillary space. BC is the process which projected inward so that the end C was in contact with the pharynx. The dotted line denote the portion of the stylo-maxillary ligament which had acted as a conducting band and apparently separated the portion B from the upper part of the tumour.

A large and deep cavity was left into which slight oozing occurred.
(Case XVI)

drew at the bottom some bubble of air, indicating a communication with the pharynx.
The ligatures were of silk and hemp, my supply of catgut having given out. One end of each ligature was left long and all were brought out together to act as a drain. The edges of the wounds were then brought together with silk wire sutures and pins. As a dressing I applied two sponges, eosin to exert a considerable amount of compression with a view to check further oozing and to prevent the occurrence of Empyema.

The patient bore the operation well. The hemorrhage was slight; considering the locality. Toward the close the fluid had the peculiar property of keeping the pulled forward and kept so.

Progress. For a few days after the operation the patient suffered from difficulty in swallowing, accompanied by swelling at the back of the pharynx, at the left side. This gradually subsided. The patient became all round in two or three days.
Dec. 4th. All the ligature but one came away. The wound is nearly healed. There is a slight discharge. Considerable swelling and induration in the left retro-masseter region. The mouth is somewhat drawn to the right side. Otherwise everything is well. The patient eats well and drinks a little red wine with the meals.

Dec. 7th. (Twelfth day after the operation) Severe bleeding occurred today to a slight extent. Which was arrested by plugging the wound with strips of band lint and applying a compress of lint external to the same. Summed the plugs. No further bleeding.

A small abscess formed in the submaxillary space which opened Nov 23rd & 24th.

Dec. 12th. Patient called to report himself on his way home to Ships. The wound is completely firm, hard. There is rather a deep scar which will be well covered by the beard. He has regained considerable power over the left angle of the mouth, and he is very satisfied with the result of the operation.
Case XVII.

Round Felled Sarcoma in the Submaxillary Space.

Yahay Sarkis - aged - An Armenian - applied April, 1877.

History and Present Condition. Here is a swelling in the right submaxillary region about the size of a pullet's egg. It has been observed for twelve years but has been growing rather rapidly lately. It is smooth, tender, and rather softer to the touch than an adenoma tumour, but hardly so soft as fatty growth or cysts usually are. Immediately behind it is the bivium jugulare vein and close to its anterior edge the artery of the neck can be felt pulsating. The tumour itself does not pulsate. The patient and his friends are anxious for operation and after warning them of the possible difficulty and danger I acceded to their request.

Operation April 9th. Patient being under chloroform, I made an incision obliquely downward and forward over the long diameter of the tumour.
I cut through the skin and jelly of the platysma, and came upon the smooth and glistening capsule of the tumour, without worming any vessel. The capsule was not only connected with the surrounding tissue, so that I was able to separate it with the point of my fingers without any further direction. I then found that the tumour sat a process deeply inward, which turned round the anterior border of the sternum and mastoid, through which the nutrient vessels entered. Not liking to use the knife any deeper, I transected the root so-nod with a double ligature of stout curved catgut, each half of which was tied tightly on its respective side, to strangulate the tumour completely. I then cut through the sheath and removed the tumour as close to the ligature as I thought safe. As hemorrhage followed its removal, but a deep cavity was left at the bottom of which the External Carotid Artery and
branches, could be seen pulsating beneath the Fascia Colli. I stitched the upper part of the wound, inserted a drainage tube one inch long into the deepest part of the cavity, and dressed with compresses of Boone's lint, applied so as to obliterate the cavity as much as possible. The operation was about 6 hours.

The tumour, on microscopic examination, was found to consist almost entirely of cells, which were uniformly round in shape and varied in size from the diameter of a white blood cell to four times as great. Some of the cells contained two or three nuclei, but the most of them only one.

Drapes. The upper part of the wound healed very quickly. There was a moderate amount of suppuration. By April 30th the wound the wound had healed completely, all but a small granulation at the lower end.
CASE XVIII

Roma Gella Sarcoma - Submaxillary Space.


History and Present Condition. She has noticed a swelling in the neck below the left side of the lower jaw for six or seven years. During the past two years it has grown more rapidly until it has attained the size of a pigeon's egg. It is smooth, circumscribed, freely movable, and rather softer than an enlarged lymphatic gland. Patient desires its removal by operation.

Operation - March 21st. Patient being chloroformated, I cut down freely upon the tumour making the incision parallel to and well under curve of the jaw. I cut through a layer of subcutaneous fat and the platysma, and having reached the tumour, I freed it with a sharp hook and directed it out from its capsule with extreme facility. Two small vessels escaped and were tied with catgut. The wound was
(Case xviii)

closed with two or three fine sutures over a drain composed of four strands of catgut, and a sponge was applied as a dressing, with a moderate amount of pressure.

The tumour resembled the feel of a fish in colour and consistence. Its section was finely granular and homogeneous. Under the microscope (300 diameters) it was found to be composed entirely of cells uniform in size (equal to that of a red blood corpuscle) round in form, containing one or more nuclei. It was in fact a good example of a Round Cell Sarcoma.

Progress - March 22nd. I removed the sponges and substituted dry woolen lint. The wound is beautifully clean.

March 25th. The wound is healed completely. I removed the stitches.
Case XIX

Fibro-Osces. Tumour of the Upper Arm.

Buck Osce Nixo - Buck, aged 21, applied for treatment October 1877.

History and Present Condition. Since childhood there has been a hard lump over the outer condyle of the left humerus. Eighteen months ago it began to grow rapidly and to extend toward the inner side of the arm, until it has attained the size of two fists. About a month ago the skin gave way at the seat of most active growth, and haemorrhage ensued to a moderate extent. At present there is a large circumscribed tumour above the left elbow on the antero-lateral aspect of the arm. It is firm, hard, and painless externally, but softer and painful at its inner side which has been the seat of most active growth lately. At this part the skin is tightly stretched over the tumour, livid in hue, and somewhat adherent, about the middle is an ulcer the size of a Crown piece, through which...
(Case XIX)

A dirty red mass protruded like a fungus. The patient's general health is good.

**Operation Octob. 10th**  
Patient was placed on a shoulder support on two stools for a table. Brought under the influence of Chloroform. An elastic band was applied to the upper arm, and the tumour was dissected out together with an oval piece of skin, without any difficulty. Six to eight small vessels were tied with catgut. There was no haemorrhage to speak of. The wound was well washed with a solution of Chloride of Lime (4 parts to the ounce). Drainage by means of the catgut ligature left long for this purpose and brought out at the middle of the wound. The edges were brought together with sutures of iron wire, and a dressing of oiled lint, applying with a moderate amount of pressure. Patient to have one grain of opium.

The tumour was formed to consist of two distinct portions. The outer part was harder texture. The inner of
Nearly gelatinous consistence. The section of the denser portion was yellowish white and glistering, interspersed by faintly marked white bands. Under the microscope (50 diameters) were seen fibre and nucleated cells of connective tissue, the fibre greatly preponderating and arranged in wavy bundles. The section of the softer portion was semi-transparent, its structure was essentially the same as that of the former portion. Fibre & cells only. The cellular element preponderated over the fibrous. The difference was apparently due to the more rapid, but imperfect, development of this part.

Progress. Some of the skin sloughed off, perhaps due to the action of the chloride of lime, and a little gaping of the wound occurred. The healing process was complete however by Nov 3rd, twenty-four days after the operation — and in a short time the patient who was a blacksmith, resumed his occupation.
Case XX

Fatty Tumour of the Shoulder


History & Present Condition: The patient noticed a soft swelling on the left shoulder for ten years. At first it was very small but it has grown somewhat rapidly during the past few years. There is now a flattish, circumscribed tumour in the left supra-scapular fossa, subtended by a movable about the size and somewhat of the shape of a tomato. I diagnose a fatty tumour. Recommended its removal.

Operation April 1878: The patient being chloroformed, I exposed the tumour by a free incision through the skin. It was quite superficial and the lobules of fat budged out of the capsule at once. I dissected out the entire mass with great ease, cutting different parts of the capsule successively on the stretch, and dividing them with the point of the knife.
(Case xx)

Two three small vessels were tied with catgut ligature which was left long. The edges of the incision were then brought together with wire sutures. The catgut drain brought out at the posterior end, and a Strue gauge was applied as a dressing.

Progress April 5th. Removed the Strue and dressed the wound with moist lint. It was beautifully clean, and free from tension. Healing was complete in two days.
Case XXI

Fatty Tumour of the Neck.

Mustapha, Attuk, aged 60, consulted me in the month of April 1877. He is a tumour the size of a child's head occupying the space between the right ear and the right shoulder. It has been twelve years in growing and has all the characteristics of a fatty tumour. It incommodes the patient only by its own bruoseness and by the deformity it causes.

Operation, April 27th. Patient being chloroformed and laid upon some pile of ashes, I removed the tumour together with an elliptical portion of skin. The dissection was very easy. The tumour was subcutaneous throughout and only two vessels required ligature. They were tied with catgut. Nearly any blood was lost. The edges of the wound were brought together with four or five sutures of linen wire, and a linear wound was left.
Case XXI

about five inches long, running downward and forward as far as the anterior border of the sternum, which was incised at the anterior end, and a dressing applied consisting of compresses of Bovic lint.

The tumour was found to consist entirely of fat, rather loosely packed together. It weighed exactly two pounds.

Progress:
April 25th: Draining changed - wound looking well. Patient has been troubled with a cough for some time, which is worse today.


May 3rd: The inner lip of the wound has become somewhat indurated posteriorly. Spared it and brought it into contact with the incision of the upper lip with two strong silk. The healing process progresses satisfactorily and now seems complete. Patient highly delighted.
Case XXII

Fatty Tumour of the Neck

Abraham, R. DS., aged 40.

Applied for treatment April 1877

Present Condition: There is a soft tumour about the size of an orange situated in the left posterior quadrant of the neck. It had been growing for many years.

It was circumscribed, not fluctuant, & felt of almost fluid consistence. Believing it to be a fatty tumour, decided its removal by operation.

Operation on April 26th: Patient being chloroformed, I dissected out the tumour with iron scissors with difficulty. A few vessels were secured with catgut. There were several roots which were carefully dissected out. Some fibres of the Trapezius were exposed.

A drainage tube was introduced - the wound stitched with silk and tinned with pair of Rongeurs.

The tumour consisted of semi-fluid fat. The wound was healed in eight days.
Case XXIII

Sarcoma of the Back of the Neck

Oria - An Armenian, aged 30, applied for advice May 1st 1877. Present condition - There is a tumour the size of a small orange on the back of the neck. It is soft, frameworked but very superficial and projects rather more to the left side than to the right. I diagnosed a fatty tumour and advised its removal.

Operation May 3rd: Patient lying under chloroform. I cut down upon the tumour and directed it out carefully. It lay beneath the Trapezius and infra-roots beneath the Splenius Capitis. After its removal, which occupied considerable time, a cavity more than two inches in depth was left. The primary incision being made in the middle line of the back, the haemorrhage was very slight.

A drain was inserted into the depth part of the wound, and the edges were brought together by three or four sutures of
(Case XXIII)

Silver wire passed deeply through the texture. Compresse of cotton but applied as a dressing.

May 1st. Patient comfortable. The upper part of the wound has healed (immediate union) I removed the dressing tube and all the sutures but the lowest.

May 8th. Removed the last stitch the wound was but healed.

The tumour consisted of fat of rather firm consistency than in the previous two cases.
Case XXIV

Fatty Tumour of the Neck.

Muhammad - A Turkish peasant aged 40, presented him self for operation in April 1878.

History and Present Condition. Patient had observed a swelling at the right side of his face and neck for more than ten years. The growth slowly increased, and at present it is about the size of the head of a sardine. It extends downward from the mastoid region over the sternocleidomastoid muscle. It is oval in shape and apparently quite superficial; the surface is smooth and shows no tendency to ulceration. It is remarkably firm and resistant, having quite the feel of a fibrous tumour.

I diagnose a simple tumour, susceptible of complete removal with safety, and consented to perform the operation. The patient had travelled to Amstak on foot from a considerable distance, bringing all his property with him. He succeeded in obtaining a lodgment in a poor house at the edge of the town.
Operation, April 25th. Patient, being under chloroform, I cut down freely upon the tumour through the splatymus. It was then shelled out from its loose capsule with extreme facility, except at its upper end where it was adherent to the mastoid process. Two or three very small vessels were tied with catgut. The wound was washed out with carbolic acid solution. Stitches with carbolic silk. drains taken inserted, and a compress and dressing of gauze applied.

The patient then lay down very contentedly upon the floor, as he had in bed, and covering himself with his coat. The tumour was composed of pale fat compressed into trabeculae formed by white bands of fibrous tissue.

Progress. Two days after the operation, as I was going to change the dressing, I met the patient on his way up the hill to my house. He took him back to his lodgings and dressed the wound again with
(Case xxiv)

antiseptic gauze... It was perfectly sweet... and the patient was free from pain or any constitutional disturbance. He made a rapid and excellent recovery, lying on the ground, and eating the...
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Illustrated

With Specimen
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