Cases in Clinical Surgery
with Remarks.

In choosing the above as the subject for my graduation thesis, I have been guided by my inclinations, and by having been house-surgeon in the Glasgow Royal Infirmary under Dr. Macgregor there having the charge of about 60 beds. Since then I have been engaged in private practice and have had several very interesting surgical cases.

Compound Fractures.

All the following cases of compound fracture were treated on the strict antisepctic system, i.e. Lister's System.

Case I. Compound Fracture of humerus, radius, & ulna.

J. M. Aged 23 years, a labourer residing in Glasgow. Admitted to the Royal Infirmary on Nov. 8th 1878. Patient worked on the railway and while walking along the line was knocked down by one train while trying to avoid another coming in the
opposite direction, he states that he was not run over.

On admission there was a compound fracture of the right humerus, the external wound was very small and bleeding was going on from it, though to only a slight extent. The fracture was found to be very oblique situated about the middle third of the bone; the fragment not lying in position. Dr. MacEwen enlarged the wound and introduced his finger through the opening. He found the lower fragment had a very sharp upper joint which had evidently caused the wound in the skin. A considerable layer of muscle was found between the upper and lower fragments, and it was with some difficulty that this could be pushed aside. The sharp jointed lower fragment was then projected through the wound and the end snapped off with the bone pliers, there was then found great difficulty in keeping the broken bones in opposition, and this could only
be done by keeping pressure upon the end of the lower fragment. Various positions of the arm were tried but it was found that the test was obtained by forcibly extending and rotating in, but when this was relaxed the bones returned to their former position. Under these circumstances a layer of cotton wool was cut to fit the limb; this was then dipped in melted paraffine, and while the fingers were still on the wound keeping the bones in apposition, the material with three pieces of wooden splint imbedded in it, was applied to the limb, moulded to it, and quickly hardened by pouring cold water upon it; the pressure which had been kept up during the application of the apparatus was then removed. Opposite the wound an opening was cut in the case, to allow of the free escape of discharges, and the proper dressing of the wound. The wound was then thoroughly injected with 1-20 Solution of Carabolic Acid, and the usual antiseptic gauge
applied. A large external dressing encircled both splint limbs. In about two days it was deemed advisable to cut the splint along the top, to relieve pressure, as the hand had swollen somewhat. This was done but the splint was not removed and still acted efficiently. The dressings at first were changed daily, but soon less often, and the whole splint was thoroughly washed with Carlolic solution, which did it not harm, it being impervious, and the water draining away through holes made for the purpose on the under surface of the case. The discharge—at first bloody, then serous—soon diminished and the wound healed well.

In the same patient there was a compound fracture of the left Radius & Ulna, the wound was about an inch in length and at the lower third of the forearm; the Radial Pulse could not be felt in this arm, but the fingers could be moved a little. The arm
was put up with two lateral splints, the bones first being brought in opposition, and the wound dressed antiseptically.

There were also several smaller wounds about the body viz: A lacerated wound of the hip on the left side, one on the left heel, one on the left arm, besides bruising of the left shoulder posteriorly.

It will thus be seen in what a helpless condition the patient was, both arms being in splints, he had to be fed by the nurse. The man progressed most favourably and never had a bad symptom. The bones of the left forearm united well firmly, and the arm became as useful as ever.

The right arm also healed well and the bone united firmly, but the movement of the arm was limited, as he could not raise it above a certain point, apparently from paralysis of the muscles supplied by the
musculo-spiral nerve. The movement of the elbow joint was also limited but the patient had a most useful arm and hand. The wounds about the body healed well and from the first the patient ate well and was very cheerful.

On January 1879, he was dismissed well, having only been about 10 weeks in hospital.

I wish here to say a few words as to the treatment of this case for the most favourable termination of it, can I think be attributed to it. Of course, the health of the patient is of primary importance and as this patient enjoyed robust health it tended greatly to facilitate his recovery, for the tissues being healthy, they could put forth their full power in the way of healthy granulations: but still all this being taken into account, the result of this case would not I venture to think have been so
satisfactory, but for the mechanical apparatus that was used. Suppose for a minute that that small wound had not been enlarged, and that the fracture had been put up as it came in to Hospital, what would have been the result when the surgeon came to examine it, say at the end of 6 weeks? It could have been none other than failure of union of the broken bones, for the layer of muscle would have been between the two fragments, and this we know to be one of the great causes of ununited fractures. Not only so, but to get this muscle out of the way was so difficult, that in only one position of the arm (viz., possible extension & inward rotation) could it be accomplished satisfactorily, and until the firm case for the arm could be prepared, this extension together with pressure on the fragment was kept up. A few years ago, when the antisepctic treatment of wounds was yet in its
infancy, what surgeon would have enlarged
a wound in a case of severe compound fracture,
to introduce his finger, to see how the fragments
were situated; would they not have quickly
have covered it up either with blood, or otherwise
secured it from the air, and then just one splint.
This I think would then have been done, and
the surgeon would not have been justified
without very good reason in exposing a larger
extent of cut surface to the air. But thanks to
the antiseptic treatment, if we have any
doubt about a wound, it does not I think
increase the patient's risk to enlarge it
and ascertain the exact injury, and thus
obtain invaluable aid in our treatment, in
fact it is only right to the patient to do
so. Let it be quite understood that I do
not advise in every case of compound fracture
to open it up, but only in cases where we
may expect aid to our treatment, and then
only antiseptically. As regards the partial
paralysis of the arm, the muscle spiral nerve
must have been injured, either crushed or torn
across at the time of the accident, as it was the
paralysis of those muscles that affected the
movements of the arm. As times goes on, the
patient will I think gain more and more use of
his arm, as it is, he can lift his arm to a certain
extent, and the movement of the hand are quite
good.

Speaking of emuncted fractures, reminds me
of two cases when I was a student. Both
came into the same ward and both were
operated upon, but in one, in addition to
cutting down on the ends of the bone & nipping
them off, silver wire was used to keep the two
ends in close opposition, and this case healed
well & the bones united firmly, while in the
case where there was no wire used to keep
the bones still, the fracture did not unite.
a second operation had to be performed and the wire used, before union was obtained. I remember well how annoyed the patient was that his first operation was not successful and indeed the other man.

Case II. Compound Fracture of Femur & Fracture of Humerus Radius & Ulna.

Mr. G. Aged 29 years. Railway shunting guard. Residing at Coatbridge. Admitted to the G. R. I. on December 8th 1878. About two hours before admission patient was uncoupling wagons, when he slipped whilst leaning over them and fell in between the wagons which were moving. He was at once brought to Hospital and put to bed. He was very weak and suffering considerably from shock to the system. His right arm & thigh were fractured and the lower limb lay twisted on its side as if useless.
First. There was a wound about two inches in length at the apex of Scarpa's triangle, leading into a cavity which the finger felt filled to a considerable extent with blood, and recognised the sartorius muscle bare of the femoral artery out of its sheath for about one and a quarter inches was felt beating, and a piece of bone which evidently had partly been the cause of the external laceration. There was a compound fracture of the right femur and the condyles were very much comminuted, and although there was an abrasion over them, at first there was no wound externally. The leg was twisted quite round lying on its side. The thigh was a good deal swollen.

Next. The right upper arm at the shoulder was found very greatly distended with fluid. The part lying very tense indeed, so that no bone could be made out. There was a broad bruised circular mark going across the arm.
just below the shoulder, such as would have been caused by a wheel passing over it. There was also a fracture of the lower third of the humerus on the same side.

Next there was a fracture of both bones of the forearm, about its lower third, and there was a wound just above.

The patient was in such a critical condition that it was determined to leave him alone and not perform any operation, as it would probably hasten his death, and he was not expected to live. The tense shoulder was ordered to be fomented, and the smashed thigh gently placed on a McIntyre splint. It was laid in it very loosely and put in as good a position as was possible. The wound in the thigh was thoroughly explored and injected with 1/20 aqueous solution of Carbolic acid and dressed antisepically. Patient ordered a nourishing diet.
In spite of the severe injuries, the patient kept up his spirits wonderfully, and was quite calm. The fractures and wounds united well. The wounds were at first dressed daily until the discharge of serum lessened. The forearm was placed on an angular grooved splint to keep it steady and the fomentations to the shoulder continued until the swelling had somewhat subsided, which it did very gradually; on Jan. 10, 1879 a few weeks after the accident a large quantity of callus was felt showing how the bone at this joint had been smashed.

Patient could not have gone on more satisfactorily, and in about five weeks after admission the wounds were healed. The upper arm for about three inches was broken into fragments and these were much scattered as shown by the very great thickening of bone found after the swelling had gone down. A considerable effusion of blood had taken place, this causing
separation of the fragments.

On Mar 18/79. The arm was examined and found quite firm, but the thickened state of the bone was felt now more distinctly.

On Mar 24/79. Patient was dismissed today well could walk well, the bones of the thigh having united well and in good position. The motion of the arm were very good indeed, but the thickened state of the bone was of course still felt. There was also a projecting spine of bone at the shoulder, the end of which could be felt under the skin.

The following is the chart of Rectal Temperature the average of these temperatures, or I should rather by the normal temperature is about 99.8° to 100° F.

The temperature was taken in the rectum to obtain more accurately the state of the patient and because it was thought to give a much better idea of any slight variation.
## Rectal Temperature Chart in Case II. J.G.

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By this table it will be seen how very little rise of heat there was in spite of the grave injuries.
A few of the reasons of this most favourable course are:

1st Immediate removal to hospital.
This I consider most important or very important, if not the most, for when a patient suffering from shock is taken from place to place before finally sending him to an infirmary and then perhaps sent in a rude jolting cart or wagon, it is easily understood how the shock is intensified, in fact some never rallying from it, and thus it is that as Professor Spence has pointed out, it is better for the patient to be treated near the scene of accident than to be taken a long distance to hospital and his chance of recovery is far better.

2. Absolute rest obtained for injured parts.
This is always recognised as most essential, not only in compound, but also in simple fracture. This patient was exceedingly quiet obedient. the bones were thus able to be kept at perfect
rest, there was no jarring, and thus not so much risk of inflammation. It should be noticed that the temperature never rose above about 20.7.

3. Antiseptic dressing. Treatment

This I believe to be one of the secrets of success, not that I say the same result could not have been obtained from any other mode of treatment, but this I do say, that undoubtedly nature was allowed to take its course more safely if I may so speak, with a greater chance of a successful issue. Rubredaction, the great destroyer, was completely prevented & kept from the wounds, and thus all irritation & inflammation prevented.

4. Patient's good constitution & ability to take food.

This is most important and a thing that is often overlooked. When a certain result is obtained by a certain method of treatment it is often accredited to that treatment alone, and we are sometimes apt to forget that very
good results, and some say, as good results can be obtained by other methods than the antiseptic. I think the great cause of all this is the strong constitution; the tissues are then in their most active vigorous state, more apt to heal if severed, and repair much easier effected. The patient was a strong well built tall healthy looking man, and nature would have in him a good subject for her experiments.

The above case of F. G. is the worst case of compound fracture I have seen recover without loss of limb. Owing to the tense swollen state of his shoulder, on admission, no fracture could be made out, in fact no sort of examination, but when the pain subsided, the state described above, with the projecting bony spine, was found. This bone Dr. Fraser, said he would remove if the man liked, but
he thought he would like to keep it.
The man's complete recovery was a surprise to all who watched the case.

Case III. Compound Fracture of Tibia & Fibula.

Peter S. Aged 46 years, a labourer residing at Glasgow. Admitted to the G.R.S. Jan 2 1979.
Injury was caused by the fall of two boxes of oranges, and patient said he had attempted to walk after the accident.

On examination a compound fracture of the right Tibia & Fibula was found. The bones were much comminuted, and one portion of the Tibia was driven through the skin. The wound was 1½ inches in length; it was injected thoroughly with 1-20 solution of Carbolic Acid, dressed antiseptically and put up in a half box splint. The wound healed well and on Feb 18th the bones were firmly united. On Jan 27th the half box splint was taken off.
and the limb enveloped in cotton wool saturated with hot paraffine, and this moulded well to the limb. The whole was quickly placed in cold water when a hard case or splint of paraffine was obtained. This was much easier for the patient, as he could move it freely without disturbing the bones and was able to rise from bed sooner. March 5th Patient dismissed well.

There is very little to say about the case for the fracture although a bad one, healed well, as also did the external wound.

Case IV. Compound Fracture of Tibia & Fibula


Patient was run over by a lorry which he said weighed 3 tons, the wheel going over his leg just above the ankle joint.

On examination the wound was found to be
about an inch in length with a good deal of
bruised tissue about its edges; the whole circum-
ference of the leg around the ankle was much
distended and swollen, the toes were moved
with very great difficulty and only to a slight
extent. Over the leg generally there were a
considerable number of bullae, under which after
a short time sloughs began to form, and the
bruised tissue around the margin of the wound
also gave way at the same time, leaving an
aperture which bared the bone for a square inch
and which also exposed a quantity of bruised
tissues. After these sloughs had formed, a
drainage tube was inserted in the wound passed for a
distance of about 5½ inches downwards from
the leg to the ankle.
The limb was at the first put up in a half
box splint after being injected with the usual
Carbonic Solution & dressed antiseptically.
Afterwards as the sloughs began to separate
and the discharge to increase, a paraffine case made with cotton wool was fitted to the limb (as in cases before mentioned) and then cut into two halves, the upper half being removed during the dressing of the limb; abundance of apertures were made on the inner side for drainage. The limb was dressed daily, for the discharge was very profuse, and well injected and washed with Carbolic Solution. The splint acted excellently as it shed the water directly on coming in contact with it. Over the splint containing the limb a large antiseptic dressing was placed so as to prevent access of unpurified air. The discharge continued very abundant for a good long time, and the bone was seen bare at the bottom of the wound, and in fact it was questioned whether amputation would not be ultimately required.

March 13. A large sinus still exists in the leg although the fractured bones have been well
united some time, the wound seems to enlarge instead of getting smaller. Patient ordered two bottles of broth a day in addition to his nourishing diet. An opening was made a little lower in the leg to permit better drainage.

Apl 1. The wound on the front of the leg seems to be healing, but there is a large slough on the heel. The whole limb is slung by Saltar’s cradle.

Apl 16. As the patient did not improve as well as could be wished, it was thought that a change from the ward air would do him good, so he was sent home, and dressings given him to use himself at home. While in hospital, the rectal temperature ranged about 101°, on one occasion reaching 104°. Patient has since returned to hospital to show himself, and the leg had improved
Very greatly, the change into the country having had the desired effect.

The two principal points to be noted in this case are:

1. The severe injury causing such an amount of sloughing etc.

2. The tedious recovery in hospital and quick convalescence on removal home.

The history of the weight which went over the leg would almost have warranted amputation at once, without waiting for the result of the injury, but on first examination there did not appear so much damage done to the tissues as afterwards showed itself, but that tissue had been deprived of its vitality and as of course sloughed off. I well remember how tedious was the recovery in this case and how day after day no improvement could be seen, until the increased diet assisted nature a little, and although the bones united firmly, the tissues seemed very weak,
and the sinuses still remained, though to a less extent. It was then determined to send patient home for change of air, at least for two weeks to see if he would improve more rapidly. This had the effect of quickly causing the leg to heal, and when we remember that he had been in hospital over 4 months, confined to his bed for most of that time, and surrounded by influences that are not for the best, in the way of seeing other people suffer; I think it should suggest to us oftener than it does, the desirability of sending our private patients for change of air when nature seems for the time to have exhausted herself, for we are often surprised at the result, on their return.

Case II Compound Fracture of Tibia & Fibula.

John aged 24 years, a collier. Residing near
Admitted to G. R. I. Jan 27 1879.

Patient was following his usual occupation in the pit when a large piece of stone weighing about 12 tons fell upon his leg.

On admission two wounds were found, one on the inner and the other on the outer side of the leg. The outer one was about an inch in length, was much lacerated, on introducing the finger it passed into a large cavity three or four inches in perpendicular length in which lay the fractured Fibula.

The inner was about 1/4 inch in length, lacerated and the bone still protruding through it externally. A portion of the protruded Fibia which was sharp pointed was nipped off by the bone friceps, as it was impossible to bring the upper and lower fragments into apposition while this remained. The one wound communicated with the other. Both were thoroughly injected with 14% solution
and the fragments brought together. A drainage tube was inserted from the outer opening which drained also the wound on the inner side. The whole leg was put up in a firm paraffine case, and an aperture cut in it opposite the outer wound. The inner wound was kept covered as it was intended to drain both wounds from one opening, and let the other heal up. The above apparatus was found very useful as it could be lifted en-bloc and put in a bath of carbolic solution, or washed freely. Antiseptic dressings were applied over the window of patient kept in bed. The wounds healed well and the patient progressed as favourably as he possibly could. The bones united firmly, and he was dismissed well Mar 31st. The old splint was given him to wear a little longer as additional support. The above case is chiefly worthy of notice.
CASE III. Compound Fracture of Metatarsal Bones

Alex D. C. Aged 15 years. A couple of wagons.


On examination, a lacerated contused wound about 4 to 4½ inches in length was found stretching across the inner side of the left foot, in a slanting direction. On introducing the finger, the metatarsal bones were found broken and crushed, and the ankle joint opened up, and its articular surfaces bare. There were also several other wounds on the foot and a bruise of the leg rather severe. The foot was very much infiltrated with blood, and the skin was tense. I immediately injected...
The wound thoroughly with the usual solution and dressed the case antiseptically; the patient progressed most favorably. Those two or three degrees but soon subsided. In a few days some sloughs appeared, one on the heel and the other on the outside of the leg due to the violence of the injury. The extensive wound on the inner side of the foot healed well, and the bones were found firmly united on Apr 7 when patient was allowed to get up from his bed. On Apr 16 was dismissed well. The injury was caused by very great violence. The lad was uncoupling wagons when his foot got between the rails and a crossing, and the wagon coming along crushed it. The question at first was could the foot be saved? But I thought that if we could prevent suppuration (and this we hoped to do, seeing patient was quietly brought to the hospital from the country,) we should have a good chance of a useful
limb, as the boy was young & healthy, therefore thoroughly injected it with 1:20 solution and placed the limb in a half-box splint. In these railway injuries, it is very often most difficult to tell amount of damage done, and the force causing it, together with the state of the parts, must be our guide. The result of the case was all that could be wished. The boy walked with a useful limb.

Rectal Temperature of Alex Jr-C. Case 01.

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Case VII. Compound Fractured Fracture of Skull.


On admission I found the patient very weak and anaemic, as if a large quantity of blood had been lost. His lips and the conjunctiva of the eyeballs were very pale, and his pulse weak. He was at once put to bed before the wound was attended to, as there was no bleeding just then going on. Strong beef tea made from Johnson’s Extract of Beef (which is a very good preparation) was administered, and the man soon revived. The wound was situated on the left side of the forehead, running vertically...
upwards from the outer border of the left eye for 2½ inches; in its centre it extended down to the bone for about an inch cutting all the tissues and periosteum. The bone at this point was fractured in two parallel lines, and in the same direction as the external wound, the lines were very small indeed but could be felt by the finger. Whether the fracture extended deeper than the external layer of the cranium of course I cannot say, but think it did not. The wound was linear and cleanly cut; at first, owing probably to the weak state of the man there was no bleeding, but on cleansing the wound, one or two spouting vessels required ligature. The wound was dressed antiseptically, three stitches of catgut uniting the edges. The extremities of the wound were superficial and it was only at the centre that the bone was bared. A little higher in the head there
was also a superficial scalp wound an inch in length but not of any great moment. The wound healed well and there was no unfavourable symptoms, and 10 days after the accident it was quite healed and patient dismissed July 26th. As to the cause of it, I could never ascertain definitely, it must have been done by some sharp cutting instrument. Patient on admission was the worse for drink, and accused his landlady of doing it, but this he denied when sober the next day. There were no head symptoms, but the patient was kept very quietly in bed for several days in case any should develop, and to prevent them if possible. There was no inflammation about the edge of the wound, and it healed with a linear scar.
Case VIII. Compound Fracture of Skull, by Porcelain.

Ann D. . . n. Aged 52 years Residing in Glasgow.
Admitted Jan 4th 1879.

Patient was admitted into the female ward with a severe wound of the head, she was the worse for drink and rather difficult to manage. She was seen by a Doctor outside who finding the wound bleeding, stuffed it with lint, and advised her to go to the Infirmary.

As the case was a very serious one I at once sent for Dr. Maciwe, as it was a question whether an operation would be required. In the mean time I examined the wound, on removing the lint found an artery spouting, this I tied. There was also lying in the wound a very small piece of porcelain, which stuck to the bone, and this I removed.

The wound was over the parietal bone on the left side, about 1½ inches in length & cleanly cut. The skull was fractured and a portion
of the bone (outer table) was lying loose and was removed, when there was found a piece of porcelain deeply imbedded in the bone passing down in a wedge-shaped manner, the apex being towards the brain. A portion of this was removed with the dissecting forceps by Dr. Insean while another portion still remained imbedded in the skull; as this piece seemed of very small size and as it was so firmly fixed that it could not be removed without causing severe bone injury, it was thought advisable to leave it, instead of rephining; it was however decided that should any head symptoms show themselves rephining would at once be resorted to. From the fact that a portion of external table of skull was removed and after that a portion of porcelain from the internal table, and that still a further portion remained, it is likely that the other piece remaining penetrated nearly to the dura-mater. The wound was
carefully washed with 1-20 solution and dressed antiseptically. The patient progressed favourably and was dismissed cured July 6th just one month after the accident.

This was a most interesting case in regard to cause of the injury and also its most favourable course without any head symptom although a small piece of porcelain small I admit it was remained embedded in the skull. Patient although the worse for drink on admission was quite sensible, and she accused her husband of causing her the injury, which was a very severe one, as shown by the pieces of external table lying loose, and the force to cause this amount of fracture must have been very great indeed. Yet from first to last there was no sign of the hurt causing any brain disturbance although there was a small foreign body present. As to the cause of the injury, it
was said that the woman fell on to a cup near some drawers, but we never could botton the case; it was a very suspicious case, and we thought it right to acquaint the police of her severe injuries, and to get at possible cause. Patient showed herself some time after her dismissal and was then in good health and the scar lasted all night.

In connection with the above cases of head injury and another I shall presently relate, I think we might with advantage take up the question of trephining. In the case just noted above, some surgeons would say, there was a foreign substance that ought to be removed as it might set up inflammation from irritation; but in this case, the borelun was so very small, and to effect its removal would require a very severe operation, and so in this case it was determined, wisely I think
to wait, carefully watching the case for any signs of irritation, and should they show themselves at once... As to the rule in these cases, I think it must be a very general one indeed and each case must be treated on its merits. If the porcine had been of any size, I think trephining should have been done at once without waiting to see for symptoms, for the sooner it is done, the better chance for the life of the patient, for when irritation has set up inflammation, it is often too late to interfere to save the life, for the inflammation quickly spreads along the dura mater. But remove the source of inflammation, and then all the bad results are less liable to occur.

Trephining is done as a rule to remove pressure from the brain, which pressure also causes dangerous symptoms. So this there are a few exceptions e.g. in severe cases, it may be necessary to remove bone also in punctured fracture of skull.
Dease, Desault, Hornethy Brampton, say in fractures of skull with depressed bone, whether complicated with wound of scalp or otherwise, no attempt should be made to raise the depressed bone unless very decided symptoms be present of compressed or irritated brain. A great deal may be said on both sides; for if a depressed portion of bone be left, and this causes inflammation of the brain, surely it is better to relieve this pressure before any mischief is set up; and this I think should be done whether there is an external wound. As to where there is no wound it will I think depend:

1. on youth of patient
2. force causing the injury
3. on the amount of depression

If the patient is young it is surprising what an amount of depression may occur without causing any bad symptoms.
Professor Spence relates a severe case of fracture of skull in a child, where the skull was battered, so to speak, but which recovered without any operation, and without any unfavourable symptoms. The brain seeming to accommodate itself to the altered condition of the cranium. Of course the nature of the fracture must assist us, as if the bone is much broken or splintered, a sharp piece may project on to or into the brain substance, and obviously the sooner it is removed the better. In a case of depressed fracture, where at first there may be no urgent symptoms, suppuration may follow between the skull and dura mater or even more deeply.

Dr. Benjamin Brodie & Sir Astley Cooper taught that if the depression be exposed in consequence of a scalp wound, then trephine and elevate the bone, but if there be depression without a scalp wound, not to trephine.
Punctured fracture where there is usually splintering and depression of the internal table is an exception to the general rule of not trephining without urgent symptoms of pressure exist.

Professor Spence sums up thus: (Vol II. Page 758.)
1. Without delay in all cases of distinct punctured fracture.
2. In cases of compound fractures with depression.
3. In simple depressed fractures, where after a fair trial of other measures, the urgent symptoms of compression are persistent.
4. In compression from extravasated blood, when the position of the injury, or existence of a fissured fracture indicate the probability of a large artery having been torn (by middle temporal)
5. For intra-cranial suppuration, when the symptoms give an indication of the probable position of pus.
6. In certain chronic cases for disease, or alteration in the bone following concussion or other injury, causing cerebral symptoms, & Local Gastric or Epileptic fits.
As regards trephining over sinuses. This does not
debate from the operation, although it makes it
a more serious undertaking. When I was a student
Professor Lister trephined over the superior longitudinal
sinuses for epilepsy following injury, and although
he wounded the sinuses, he was able to check the
flow of blood, and the man made a satisfactory
recovery. I give an extract of the Case from my
clinical note book.

Case II. J. B. Aged 57 years. History. While at work, a beer
kask fell upon his head from the 3rd tier,
and produced a scalp wound, which left a
scar on the vertex. Three months after the
accident he was seized with fits, which
fits became more frequent, being followed by
a feeling of soreness. Patient also suffered from
headache, vertigo, and burning pains. Ophthalmoscope
examination showed Atrophy of Optic disc being taking
place, and on making pressure on the vertex
with the finger, the pain in the head was
increased. On July 2, 1916, Mr. Lakehiphined in the middle line over the longitudinal sinus, which was wounded, and the blood gushed out; the piece of bone was removed by the elevator, the finger tip placed over the wound, and the hemorrhage arrested; pieces of catgut were then placed over the curve, until the gut was above the level of the skin. The case was dressed in the antiseptic method; there was no more bleeding and the man made a good recovery on Dec. 11, 1916. Mr. Lake again brought him before us. The pain was now gone, and he had never had a single fit since the operation. The man's sight had improved, and he was now quite cured.

What gives the case more interest to me is, that I had an opportunity of seeing the patient again some months after in the Medical wards of the Royal Infirmary, suffering from Chronic Bronchitis. He had kept quite well he said.
in his head since the operation; the hollow in the skull where the piece of bone was removed could be easily felt. The poor man died of his pulmonary disease.

What the cause of the fits in the above case, was, a disputed point, some thinking there was a thickening of the bone causing pressure on the brain, but the bone appeared very little thicker than natural, I cannot tell.

In connection with these head cases, while house surgeon I admitted a boy sent from the police office, into the G. R. Infirmary, who had fallen a height down a stair, and whose head was a good deal swollen on the right side. There was no scalp wound, and no fracture could be detected. He was ordered to lie bed, and to be kept quiet.

On admission the lad seemed dazed and confused, suffering as if from concussion, but he was not unconscious. He remained in this state for
about 24 hours when he began to revive and talk to the patients around him, he gradually seemed to recover, was quite lively and intelligent, and would get up when the nurse's back was turned. All went on well for about a week, when one afternoon I was called hastily to the ward, and found the boy in a convulsion. He was unconscious, and there was twitching of the left arm, the outer corner of the left eye, eyebrow, with twisting of both eyes to the left side. This continued about twenty minutes when he vomited, and gradually came round. At the time I thought it possible the vomiting & convulsion might be due to stomach disorder, as there were a quantity of vomited matters, but next day at visit I told Dr. Macewen who at once went to see the boy. On manipulating the head over the seat of injury, a fit came on at once, with the same twitchings as before, and continued some time, after this they came on more frequently
and continued all day. Dr. Macewen then determined to trephine, but first got Dr. Robertson of Glasgow to see the case, when he at once concurred with Dr. Macewen. During the intervals of the convulsion, the boy appeared lively, but was not himself at night. I gave chloroform, and Dr. Ewen made an incision over the swelling on the left side of the head down to the bone, and having separated the periosseum, a fissured fracture was found stretching for several inches. The trephine was then applied and a piece of bone removed, when blood began to ooze from under the skull, and this hemorrhage kept on for some time. The bone was at this point a little depressed, but very little. The wound was then dressed antiseptically, and the patient put to bed. I remained in the Ward during the night, and he appeared all night, but restless rather excited; he did not sleep very long at once. chloride of potassium was freely
given. Next day, patient was a good deal better and the temperature which before the operation had been steadily rising, now began to decline. The patient was quieter and answered questions rationally. Wound was dressed today and looked healthy; he had no more fits, and made an uninterrupted recovery, never having a bad sign during all his recovery.

This most interesting case shows how carefully all head injuries should be treated until all chance of danger has passed away. This day to all outward appearance was quite well, until the first convolution seized him, after which they recurred at frequent intervals, and not until after the operation did they cease. The fracture being fractured and there being no external wound was not recognised until the operation, and then the kidney was placed over it, so as to make the fracture
divide the segment of bone to be removed. The immediate relief showed the correctness of the treatment.

As to the cause of the convulsions, most likely they were due to the pressure on the brain caused by the blood which ran out of the skull during the operation; of itself it did not cause any mischief, but when external pressure was applied, as shown by the manipulation, immediately a convulsion occurred.

Guide to operation. One of the best guides in this case was the gradual rise of temperature. It rose to 103° F gradually, for it was registered every two hours, and after the operation, it as gradually fell. It was an imperative call for interference, for it showed that other mischief was being set up, or about to be set up, and this the nephputation prevented or stopped again. The convulsions occurring on the left side of the body pointed to irritation of brain on
right side, and having the seat of previous injury on that side, chewed where the trephine must be used, if used at all.

This case well illustrated the rule that “In simple fractures of the cranium with slight depression, it is not good practice to trephine without urgent symptoms of compression occur, and then trephine at once.”

**Compound Fracture of Olecranon Process of Ulna**

**Case 41** Dominie F. Aged 23 years. A quarryman residing in Wishart. Admitted to G. R. I. April 7, 1879.

While about his work, patient fell down a quarry 45 ft. high, and was brought to hospital about 6½ hours after the accident.

On examination, the left elbow was found much swollen, and a wound about 1½ in. in length was situated over the Olecranon, running parallel to the arm. This wound led into a
cavity, and on introducing the finger, the bone was found fractured, and the fragment drawn up somewhat by the triceps muscle. I thoroughly injected the cavity with 1-20 Carbolic Solution, the arm was then placed in the extended position, with a straight splint to the inner side, a pad and bandage were applied in figure of 8, to keep the fragment in position. Dr. Macfaden seeing the case next day, he found the above mentioned state of parts, the joint being opened up, and the broken fragment turned with its articular surface outwards. It was with the greatest difficulty that it could be kept in position, but by being held firmly until a Paraffine case was applied (in the same way as Case I.), it was retained in position. An aperture was then cut in the case to allow drainage of dischage, the dressing of the wound. A Cage Antiseptic
dressing was applied over all. The second healed well, and the patient was dismissed well May 22.

This case is of interest more from the exposure to the joint, and the mode of treatment than anything else. The man must have fallen upon his elbow with such force as to break off the olecranon process. The wonder was the injury was not greater. As regards the Joraffine case I cannot speak too highly of its use, for it keeps the bones in accurate position, and yet allows the dressing of the wound without any movement of the splints as would occur if ordinary wood splints and bandages were used. As to the use obtained in the joint I am sorry I cannot place it on record, as my term of duty expired while the man was still under treatment, but I heard afterwards he got well.
Fatty tumor of side.

I now wish to report a few cases of tumors that have come under my notice recently, and in two cases out of the number I removed the growth successfully.

The first is one of a fatty tumor of the side.

Case III. Mr. G. Aged 55 years, a laborer, formerly a Jointman on the Railway. Swelling was first noticed over two years ago, when the man was ill, and his wife having occasion to rub his side, noticed a lump which she described as being about the size of a Bantam's egg, she asked her husband what it was, but he had never noticed anything. It gradually got larger, but for sometime the man declined to have it removed. It has never given him much trouble, except when he laid on the side it was on, when it sometimes used to "jump," but on pressing the swelling this sensation used to go off. No pain was felt in it until about a week before the
operation, which he had determined to submit to. On examination a tumor situated on the right side and over the lower ribs was found, freely movable over the subjacent tissues, and about the size of a small orange. The swelling was soft and elastic almost amounting to fluctuation. There was no pain on manipulation.

Operation. On March 2nd, 1880 assisted by my friend Dr. Kacy who administered a mixture of ether and chloroform, I made an incision in an oblique direction from before backwards over the surface of the tumor, for about four inches. The skin and subcutaneous tissue (which was pretty well loaded with fat) were then dissected back and the tumor exposed; it was then enucleated partly by means of the handle of the scalpel and partly by a few touches of the knife, the fingers being also used to separate it. The wound was then sponged, but no vessel required a ligature, and the edges were brought together by silver sutures inserted
deeply. lint coated in carbolic acid was then freely applied, and the whole kept in position by bandages. There was very slight oozying. Patient was a very stout short muscular man, and began to struggle a good deal when the chloroform was first administered, but after the operation he quickly recovered from its effects. The wound healed well, most of it by first intention, except where the drainage tube was, and the patient never had a bad symptom; his temperature remained normal throughout. I saw the patient the other day (about a year after operation) and examined the scar, which was contracted to about three inches long. She said she had no pain, and no trouble with his side.

On examination of the tumor after removal, it was found to be an ordinary fatty tumor, calcified, and enclosed in a capsule and about the size of a small orange.
The only other tumor or swelling, that it might have been taken for, was a Chronic Abscess, but the history of the growth, its situation, and the sense of touch showed it could not be an abscess, although at first there was a little doubt.

Epithelioma of Hand

Case XIII. Mr. Adams aged 72 years, a strong, wiry looking old woman came under my care suffering from an ulcerated swelling situated on the back of the right hand. The swelling began as a pimple about six months before, which resulted from a bruise, she having struck her hand against the edge of the table. This never properly healed was very painful, and little blue turfs came all round it, these began to break and the ulceration to increase, the patient now became at times most severe, making her jump all at once while at her work, preventing her from sleeping at night, giving her no rest.
in any position, for she said she could neither sit, lie nor stand with comfort. In fact she was made quite miserable by it, and thought it would kill her.

On examination there was found a small hard swelling adherent to the skin, ulcerated at its apex, and having the appearance of gradually spreading; as its nature at first was rather obscure, it was freely cauterized with a stick of nitrate of silver, and this was done on several different occasions, but with no benefit, in fact it seemed to spread quicker. The patient was now told she must have it removed, as that was the only thing to be done for it, to this she consented as she felt her life to be a misery, owing to the great pain.

On July 8th, 1879, removed the tumor from the hand together with a little of the surrounding skin, so as to get clear of the disease. Dr. Lacey
again kindly administered Chloroform & Ether. The incision was made in the length of the hand from the wrist downwards, and then on reaching the swelling, was made to diverge included the tumour and converged near the fingers. The mass was then dissected from the subcutaneous tissue, and no adhesions were present to the tendons. The wound was then sponged with Carbolie oil, and the edges brought together with silver sutures; they would not meet in the centre of the wound owing to the removal of skin, but a deep suture was placed in the whole bulk of tissues drawn nearer together, the centre being left to granulate. The wound went on well healed except at the centre, where there appeared some hard raised up panniculations were freely cauterised, and all healed well. The hand at first the woman said appeared weak, but by use the strength
quickly returned, and now two years after
the operation, she says it is her best hand.
The scar has contracted, and looks healthy
and there has been no return of the disease.
There has been no pain in it, since it healed,
and the patient has been healthy and strong since
she is now under treatment for an inflammation
of the neck brought about by using a strong
ointments recommended by a friend for a
pain in the muscles of the neck.
Remarks. This was a very interesting case for
several reasons. There was the age of the patient
72 years, not a very favorable time for the
process of healing; then the size of the lesion
was such that one could hardly have
predicted it causing all the pain, situated
as it was away from most nerves of any
importance; it would only be about the
size of a small bean. Again the relief from
the removal of the growth, this was a very
gratifying, as it encourages one to operate on these things with every chance of immediate relief, and lastly its non-occurrence up to this date, (two years after the removal,) Mr. A is now 77 years old, and except for her recent illness from which she is recovering, has enjoyed good health. She says, she has a good constitution and I believe it.

As to the diagnosis. This [then] A was shown by the nature of the growth - hard, and spreading rather fast - by the severe pain and this I think is the most important symptom in this case - by the duration only six months - by its ulcerations (although simple tumours do sometimes ulcerate) - and by the behaviour under the Disease of Silver Treatment.
Medullary Cancer of Femur.

Case XIV

Mr. C, aged six years, a pale-faced looking boy, suffering from an immense tumor of the thigh.

History. On Sunday Feb. 29th 1880 I was called out of bed during early morning to see a boy whose leg was said to be bleeding, the having burst a blood vessel. I could hardly understand the message, but went at once to the house, where I found Mr. C with a large tumor of the thigh, coursing over by large blue veins in rub, and it was from one of these veins that hemorrhage had occurred. Fuss ball had been applied and it had stayed the bleeding before my arrival. On enquiring the history of the case, the mother said he had been suffering for months, that it began in a swelling just above the knee, which gradually increased; she consulted a medical man, but the nature of the case does not seem then to have been very pronounced, as it was ordered to be faultless.
and in a few days the doctor introduced a needle into the swelling, and the mother says nothing but blood came away. The parents became dissatisfied and sent for a female bone-setter who treated the case for some time. However, the disease steadily increased until when I saw the boy, nearly the whole of his thigh was involved. The tumor was tense and fluctuating and obviously expanding; the surface was smooth except where the large veins above mentioned ran in deep grooves or channels.

I told the parents of the serious nature of the disease, and later in the day saw the case with Dr. Sacey. We then frankly told them the probable, or rather the certain termination the case would take, and that the only chance for the poor lad was immediate amputation and that at the hip joint; we thought that there would just be room for the flaps.
for that amputation but that it must be performed at once, if at all. The parents refused to give the boy the chance, and it was too late in a few days had they then wished it. For the tumor rapidly spread, involving the whole thigh, it expanded very much and one day a crack appeared in the skin, which quickly deepened, and the tumor burst, discharging a large quantity of blood and semi-fluid material. The whole thigh was now reduced to a pulp, and the patient rapidly sank and died on 15th March 1800.

The above case was a very painful one, both from the mode of its termination, and also the youth of the patient. Although tumors do burst, and end fatally that way, yet it is not the ending we look for as a rule, and the condition of the boy was painful in the extreme. If the patient had had amputation at the hip-joint performed at once, I think there
might have been a chance for him, but it
would have been a very poor one. I must admit,
considering his weak anaemic condition. His
appetite had failed, still seeing it was the
poor lad's only chance, we were willing to
run the risks of the operation. When the
mother saw the tumor burst and the wreck of the
limb, she said she wished amputation had
been performed.
This case well illustrates the madness I
must say, of ignorant people dallying in
putting off time with quacks. But even in my own very short experience, I have been
astonished at the number of people placing
themselves under the care of a quack, and
allowing him to apply the most powerful
cauties to swelling of all kinds, from
enlarged glands to cancerous tumors, and
yet some of the patients that do this, consider
themselves educated.
The Diagnosis of this case was unfortunately too evident when I first saw the case. The peculiar form of the tumor, spindle shaped, its rapid growth, the pain although this was not at times very severe except the tumor was touched, the poor boy held out his hands at once when you came near him to keep anyone from his leg, and finally its appearance after it burst.
No Post Mortem was obtained.

Aneurism in Popliteal Space.

Case 50
This case of tumor is different altogether from the previous ones, being due in the first place to an affection of, or injury to an artery.
The patient was a man about 35 years of age, who was admitted into the Glasgow Royal Infirmary for Varicose vein of the leg. He complained of great pain in the whole leg especially after exertion, and this had
became so great, that he determined having something done for relief. The man was put to bed for several days, while his case was under consideration. One night I went into the ward and was examining the leg when on dressing behind the knee, I felt a lump which distinctly pulsated. We had not noticed before, but on questioning the man, he said he had known about it for some months but did not think to mention it. On the following morning he was examined by Dr. MacEwan, who confirmed my opinion as Dr. Anderson. The lump was about the size of a very small orange, firm, and distinctly pulsating, which pulsation was expansile and synchronous with the heart's action. By firm pressure it could be reduced, or almost obliterated, but on relieving the pressure, it filled again at once. There was no particular
bruit heard over the swelling.
The man was now informed of the nature of his disease, and the ligature of the femoral artery recommended. To this he agreed and on Nov 2, 1878 Dr. Incewen ligatured the femoral artery at the apex of Scarpa's triangle with chromic acid catgut. I gave the chloroform.
The artery was easily found and the gut put round it, the wound was closed by several sutures, two of which were of the same material as the ligature round the artery. These two were deep stitches and were inserted chiefly to give an indication of the length of time during which the ligature round the artery would resist the action of the tissues; the other stitches were superficial and composed of cartilaginous catgut.
The pulsation ceased in the aneurism immediately after the ligature, but to a slight extent returned afterwards, due no
doubt to the establishment of the collateral circulation. The patient recovered well, never having had a bad symptom. His temperature as tested daily remained normal and he rested well, although complained a little of his leg aching. The limb was wrapped in cotton wool, and the case dressed antiseptically. The wound was not looked at until a week after the operation as the patient was quite well, as shown by the absence of pain, the state of the temperature, and general case of the patient, when it was found all but healed. There was not the slightest inflammatory blash. The carbolized catgut stitches, as well as the carbolized catgut drain (which had been used at the operation) had undergone their usual absorption by the tissues, while the portion external to the wound were found tense, some parts in the dressing, the
others on the surface of the delicate epithelium. The two chronic acid stitches, on the other hand, were found firm and were not removed. The dressing was now reapplied and the state of parts looked at in another week. A fortnight after the operation, one of these chronic acid catgut stitches was found to yield slightly on traction, but would not of itself come away; it was then cut and withdrawn, when the portion that was most deeply seated in the tissues was found to be slightly softened, swollen, and white, and yielded on firm traction. The other stitch was also cut and removed; and it was found that, although the internal part was changed in color and swollen, it still held firmly. What makes this case more interesting to me is, that under Dr. Maclean's direction, I assisted him in his experiment of the catgut in the chronic acid and glycerine...
solution, and I see that in a recent number of the British Medical Journal, he has published his results.

Regarding the aneurism itself, the pulsation ceased entirely at the moment of ligature and on reference to my notes I found it did not return, so I must correct my former statement, as my memory has not served me correctly. The tumor began to diminish, absorption taking place slowly. After the operation as I before said the patient slept and ate well, had no pain and made an uninterrupted recovery.

Some months after on a visit to Glasgow, I had an opportunity of seeing the man. The lump had almost disappeared, and he was quite well, save for a little aching in the leg occasionally. This may have been due to slight diminished circulation in the limbs, the collateral circulation not
being quite equal to the task of complete blood supply as yet, or it may have been due to his vascular vein of the leg which were not touched; it being thought advisable to cure the aneurism if possible and see the effect on the veins, as there must have been some pressure on the popliteal vein before.

The above case seems to point to the fact that antiseptic ligature of arteries seems to be one of the safest, surest, and least painful methods of curing aneurism.

Of course this cannot be done in all cases as in a case of abdominal aneurism which drew in Edinburgh Royal Infirmary when a student; the case was given up by the physicians and sent to the surgeons to be operated upon. The aneurism was too high in the abdomen to allow of pressure above it, but the pressure was applied on the distal side, but the case was not at all
a satisfactory one as the patient died the following day. Pressure in this case was kept up, if I remember right, for about 10 hours, the patient being kept under chloroform during the time.

The above case of popliteal aneurism, I briefly reported in the British Medical Journal for Feb 1879.

Severe injury to Hand - Partial Amputation Sep 29th 1880

Case 107 Walter P, aged years, was brought in a cab to our surgery suffering from a lacerated hand, the result of it being drawn into a hay horse chopper while feeding the machine. The hay became choked near the knives, and patient was relieving it with his hand, when it was drawn under the rollers, and the whole of the fingers and the thumb of the left hand were taken off, and only hung by shreds of skin.

On examination - the whole of the thumb, with the
exception of the extremity of the meta-carpal bone near the wrist, and all the fingers were gone, and the bare heads of two of the meta-carpal bones were seen glistening covered with their cartilage. The bones were quite cleanly cut but there was a good deal of laceration of the soft parts, some of which were hanging in shreds and were removed; the tendons were severed and torn, and lying together with particles of hay in the wound.

Dr. Tacey and myself attended to the man, the bones that were cut or fractured had their ends straightened off by the forceps, and brought to such a length, that the stump became in the form of a cone; there was not sufficient skin to cover the large surface exposed, but we thought it best to allow the wound to granulate up, than to perform an amputation at the wrist, the only other resource.

We determined if possible to save a movable
stump, as the man had his living to get which would be useful although without fingers or thumb.
The hand was cleaned from the dirt and hay, and the bleeding vessels ligatured, as the palmar arch was divided; the hand seeming to have been cut across obliquely. A small flap of skin which had escaped the knife, was brought over and covered a small portion of the exposed surface, and secured by a silver culture. The whole stump was then thoroughly steeped with diluted Carbolic Acid Solution, and dressed with Carbolic Oil.
The following day the wound was dressed and looked well. Patient had had a good deal of pain during the night.
Sept. 30 - Progressing favorably - Temperature normal. Pain not quite so great. The man made an excellent recovery, and is going about the town with a good useful
slump. He has had a hand made & fitted to it, with a fork to get his dinner with. A hook has also been made for him. He can bend the stump at the wrist but of course the loss of power of grasping. Patient was a cab driver & about to try to resume his employment. Since his recovery he tried carting, but found he could not use the shovel without a great deal of pain in the stump.

**Disease of Metatarsal-Phalangeal Joint of big toe**

Case xxvii Mr. C. Aged 21 years came under my care a few months ago suffering from great pain in the metatarsal-phalangeal joint of big toe, in fact not only of the joint, but in the bone itself.

**History.** Eleven years ago when a child she was hit on the big toe with a small wooden ball. The joints caused some degree of
fainting at the time, but was more severe on the second day. The toe was immersed in hot water, and rubbed with Hartshorn's oil. Some swelling occurred on the side of the joint, but after a time went away. For a few years after the patient says she did not tread firmly on her foot, and she had some pain in it if she had a little extra standing or walking to do. She went to a doctor who thought it nothing serious and told her to go on as she was doing. It was then much better for two or three years. In July 1870, patient felt a burning heat in the toe, which she said changed colour, and at times felt quite dead; this would last, perhaps, for a day then go off. She felt a dead feeling in it would wake her up in the night time, and thus she felt more than pain.

On examination, there was some swelling of the...
joint, and great pain on pressure, especially if the end of the toe was sharply pressed upon, causing the articular surfaces of the joint to come together. Sometimes there was quite a blue mottling of the toe, as if there was defective circulation. The pain at times was very severe and the girl was getting miserable. Blister was applied over the joint, and it was painted with tincture iodine for some time, but this did not seem to give any relief. Strapping with strong mercury ointment was then tried for a time but no treatment appeared to do any good. She then advised leaving it alone for a time. A short time after this we heard the friends had gone to another doctor, but in about a couple of months she came back again to us asking that the toe might be amputated. (I forgot to mention that we had previously told her that amputation might be required.) On March 8, 1861, I amputated the toe by the usual
incision. There was nothing particular about
the operation, and no vessels required ligature.
On examination of the parts after removal of the
fist we found slight ulceration of cartilage of
1st Phalanx, but not nearly to the extent we
had expected. The cartilage covering the meta-
tarsal bone appeared quite glistening & healthy.
We were surprised at this for we had thought
the head of the bone was diseased, and I had
prolonged my incision on the dorsum
of the foot, to remove that bone if necessary,
but seeing the state of parts of course this
was not done. The wound healed well
except at the extremity where we had inserted
a drainage tube. The girl has still a good
deal of pain in the foot, but can walk about
with the aid of a stick, and I trust in a
few months she will be able to go about
as usual.

The most striking point in the case to me.
is the great pain the girl suffered for a year, and the very small amount of disease found. I must confess I was most surprised for the girl for weeks before, had entirely lost the use of the toe, and I was prepared to find considerable ulceration of the joint. I might mention that though the girl seems of a weakly constitution, yet no organic disease of any organs in the body could be found.
Cancer of breast. Excision April 13th, 1881

Case No. 6. Aged 60 years.

History: Patient has complained of pain in the right breast for a year or two, and was treated with relief to the symptom, but she never noticed any lump in her breast until about 5 months ago, when she had another attack of pain. The pain was of a burning character usually, but sometimes sharp, and was often referred to the abdomen, which caused her not to think very much about her breast. Seeing that the lump did not go away, and that the nipple was being drawn in, she became anxious about herself, and came seeking advice.

On examination, a small hard tumor was found situated in the left mamma, just beneath the nipple, which had become retracted below the level of the surrounding skin. The size of the lump would be about that of a walnut; it was movable, but still not
completely so. It was not particularly painful on touch. Patient, who was a weakly nervous woman, with yellow complexion, appeared very anxious about it. She was advised to have it removed at once, as it appeared to be localised, and no enlarged lymphatic glands could be found in the axilla.

Her sister she said died of cancer of some of the internal organs.

Patient went home to think out her case, and in about two weeks decided upon the operation.

On April 13, 1881, I proceeded to remove the breast. Dr. Sacey kindly administering a mixture of chloroform and ether (equal parts). Patient had a weak pulse, but no cardiac lesion was detected by the stethoscope. I made an incision obliquely from above downwards and outwards, including in the part to be removed, the nipple and a
considerable portion of surrounding skin—for about 5 inches. The tumor with a large amount of fat which adhered to it, was then dissected out, when it was found that there were some adhesions to the fascia covering the rectus muscle, these were divided, and the muscle laid bare at the bottom of the wound.

There was some failure of the heart’s action during the operation which caused us a good deal of anxiety, but this was recovered by the end of the operation. Carbolic solution 1 to 20 in water, was then freely applied to the divided tissues, and a few bleeding points ligatured. There was very little hemorrhage during the operation. A drainage tube was inserted in the wound, and three deep silver wire sutures were introduced at intervals to draw the edges together. The margins of the wound were brought together by sutures of fine gut, as if possible to get
union by first intention, although there was some little tension of parts.

After the operation the patient quickly recovered from the effects of the chloroform, but was very weak and feeble, and directly I had left the house began to vomit. Ice was ordered to be freely given, but the vomiting continued the whole of the night, and brought the woman in a very prostrated condition; there was some oozing from the wound, partly accounted for by the straining caused by the vomiting.

Great pain was complained of all around the chest and especially in the back. An effusey mixture was given as also opium suppositories but no sleep was obtained during the night. Apl 14. Today at visit, patient still complained of great pain, the wound was now dressed & the bandages which had been rather tightly applied to restrain any bleeding that might occur, were removed. There was seen to be a
good deal of tension owing to the deep wire
sutures, the tissues of the breast also appeared
dark as if much bruised. There was also some
extravasation of blood on the left side over
the last ribs, and also over the left shoulder
and yet these positions had been exposed
and not bandaged; the appearance was
exactly that of an extensive bruise, how to
account for this I don't know, for there was
no pressure applied, and I can only put it
down to the weak condition of the patient
and consequent goodness of her blood.
The wire sutures were at once cut and removed
when the tension appeared to be relieved,
and the wound at its lower part opened
up a little, it was decided to leave it
thus to granulate up gradually, for it was
feared that owing to the weak state of
the patient and the low vitality of the
tissues, that there would be some sloughing
of the edges of the wound if they were kept in close apposition. Temperature was normal 98°F. At the evening visit, patient expressed herself as much easier, and had had very little pain during the day, except in her back, the sickness also had stayed, but it had left her very low.

Apr 15. Patient still a little better; the wound also has a better cast, its upper part appears to be uniting by primary union.

Apr 16, 17, 18" Still improvement though gradual.

19" Feels much better today, and enjoys her food, is not so much fatigued by the dressing of the wound, which is done every other day. Has no pain, but is tired of lying on her back. The catgut stitches have disappeared, and the wound for a short distance at its upper end healed.

Apr 22. Patient gradually gaining strength, and sat up in bed for about an hour, today for
the first time. The wound is slowly healing and the discharge diminishing. Temperature normal. It will be seen by the chart below, that it rose 1 degree, but gradually went down again.

**Axillary Temperatures of Mr. E. (Cancer of Breast)**

Apr 14. 98°
15 98.4
16 99.
17 99.6
18 99.1
19 99.4
20 99.3
21 98.9
22 98.8
The tumor on examination after its removal proved to be a Scirrhus Cancer. Had a firm hard feel, and on section was white and glistening; it appeared to be sending branchings into the surrounding tissues in the form of white bands. It was small but evidently spreading, and the operation was performed none too soon.
Lumbar Abscess. Incision Sept 13th 1881

Case XIX. Alice G. Aged 3 months.

History. The little baby appeared quite healthy at its birth, and grew well, but when exactly two months old began to cry a good deal, and without any apparent cause, this continued for a month until the present time, irrespective of feeding or nursing. The mother could not understand why it should cry, and never noticed anything the matter until the child was three months old, when she found a swelling on the left side of the back, and at once sought advice.

On examination a large deep seated swelling was found situated in the left lumbar region. The question then arose, was it an abscess or a tumor, and I declined to give an opinion which of two, until it had been watched for some time. Hot poultices and fomentations were ordered. The swelling
gradually increased, and came near the surface, but there was no redness: the surface had a few veins coursed over it, and enlarged veins were seen in the thigh, which now began to swell and as the tumor increased so did the size of the leg, due to disturbed circulation from pressure of the mass in the abdomen. The swelling was now as large as the back of the child's head as the mother said, and it was decided to open it. This I did on Sept 30th 1880, and the pus gushed out, there would be a good pint of yellow pus. The incision was carefully covered with carbolic oil and lint, and the pus allowed to escape beneath it. After the operation the child appeared rather weak, and was very sick for two days. The discharge gradually lessened. There was some prominence over one of the lumbar vertebrae and pain on pressure. From this time
The child made an uninterrupted recovery as and slept well. Cod liver oil and Syrup Ferric PhospH Co. were also given. The swelling in the thigh and leg quickly went down, the discharge became much less, and the wound quickly healed.

Apr 21st, 1881. I saw the child today, six months after, and found it grown very much and looking very well. The scar could still be seen on the back, but no prominence of the spine was felt and no pain elicited on pressure.

I had ordered the parents not to allow the child to sit up, and thus they still carried out as far as possible, but the baby sometimes sat up in bed. Cod liver oil is still taken.

This case was of great interest owing to the extreme youth of the patient, and the most complete recovery.