The subject which I have chosen for my Thesis is of great interest to the surgeon not only in Hospital but also in private practice; he is daily meeting with cases of more or less interest; sometimes the Varix is slight and recent, and it is wonderful what power he has over the disease if treated early, but if neglected for some time he will find it very often rebellious to the most judicious treatment.

We may have Varicose Veins in almost any part of the body from pressure on a veins trunk by various kinds of tumours, but I shall especially refer to two very common diseases, viz: Varicose enlargement of the Saphena V. Haemorrhoids. This subject has attracted the attention of the most eminent surgeons who have carefully studied the disease and who have also attempted various kinds of treatment with more or less success.
In order to treat a disease successfully it is necessary to study its pathology. Varicose veins consist of the dilatation of all the coats of the vessel as well as of elongation with normal thickness of these coats, or 2° of the dilatation and elongation of the coats with thinness or lastly of dilatation and elongation with increased thickness. This varicose condition occurring in the superficial veins which have no support like the deep veins, and are continually distended when muscular action takes place, the blood from the deeper parts being transmitted to the surface to that muscular action may not be impeded. A condition which would certainly take place if the deep veins became engorged. Nature which is always working for the perfection and safety of all things has not neglected to provide for the just performance and safety of these superficial and unprotected veins. They are provided with valves in different parts of their course, so that they may
not have the whole weight of the column of blood to support, but should dilata-
tion occur, the numerous valves which are inelastic follow the walls as they dilate and the result is that a backward flow of blood takes place as the valves become insufficient to retain the column of blood. The greatest dilata-
tion takes place above the attachment of the valves, where the walls are weaker. This dilatation having once commenced, any violent exertion or impediment to the return of blood increases gradu-
ally the calibre of the vessel, and this may become a source of great danger. The surrounding tissues may inflame, ulcerate, as well as the coats of the vessel, and the result may be haemorrhage, which is fatal if not arrested from the loss of blood. They are also subject to be injured by any external violence which will cause sudden rupture. Or we may have those tedious and intract-
table ulcers resulting from congestion
of the capillary system. They may become extensive and of an indolent nature from the diminished vitality of the tissue. I have seen some of these ulcers of several years standing, where the patient has applied from one hospital to another for relief; when quiet and the limbs raised, the ulcers improved, but shortly after leaving the hospital the ulcers became quite as troublesome as before.

The valves in a dilated vein which become useless gradually waste away according to a law of nature: that every thing which is superfluous and useless and does not fulfil its destined functions is removed.

The coats of veins are thinner than those of arteries, but the texture of which they are composed is of such a nature that they bear a variation of pressure and dilatation greater than arteries without any injury resulting. The power of dilatation and contraction of veins is well exemplified by changes
of temperature. After taking a warm or warm bath, the superficial veins are distinctly seen dilated and ramifying in every direction, and still it is surprising how rapidly they will regain their normal size without any defect resulting. If when plunged in cold water they are reduced to their smallest dimensions. This sudden change in their dimensions is owing to the large amount of involuntary muscular tissue, which enters into the formation of their walls, rendering them tenacious.

Varicose dilatation may arise from two opposite conditions of the venous system. From debility and want of tonicity of the general system. From subacute inflammation of the veins and degeneration of their walls a condition nearly similar to what takes place in arteries, and Rotkintansky states that this mortit result has been often overlooked by pathologists although it is of frequent occurrence. The result
of this sub-acute inflammation is the effusion of coagulable lymph between their coats and its conversion into a texture inferior in quality to that comprising the vessel, which suffers partial absorption: the weakened walls may easily dilate without any power to contract to their normal calibre. In this state they very much resemble arteries, their walls being rigid to such an extent that they are continually kept open. The valves are sometimes found incorporated with the walls of the vessel and even they may be lacerated and floating loosely in the vein.

The most common source of varic originates from causes extraneous to and independent of the vein itself; the veins retaining their normal power of resistance to pressure from within but certain obstacles to the return of blood from without compel their walls to yield. Of this we have a good example in the dilatation of the veins of the leg and
High from pressure of the gravid uterus upon the iliac veins during pregnancy, the same may be said of any tumour pressing on a venous trunk and impeding the return of venous blood; it may likewise occur as a result of the accumulation of faces in the large intestines or in consequence of congestion and malignant disease of the liver, which must naturally cause an obstacle to the return of blood from the intestines, and hemorrhoids are often the result.

The vessels in varic are not only dilated in the form of pouches in different parts of their course, but the interstitial deposit and the continual weight of the increasing column of blood produce elongation which is visible to the surgeon by the tortuous course which they take. They resemble in this condition the convolutions of the intestines or the Vessiculae seminales. In many instances the vein have been found double their normal length, from the report of many careful
observers, and it is not surprising that the inconveniences are often great from the continual pressure of enlarged veins on the superficial nerves which are chiefly sensitive; the patient being unable to follow his ordinary occupations as before, from the continual sense of weight and achings, pain which direct his attention to this ailment, rendering him morose and dejected. We often find patients so distressed that they will submit to any operation if there is the least hope of their enjoying some comfort from the operation, as is well exemplified in a case reported by Sir Ederard Home. The patient was a sailor and had been troubled for some time with varicose which prevented him from pursuing his avocations. He went to St. George's Hospital where Sir Ederard was Surgeon. After hearing the history of the case and examining him carefully, Sir Ederard told his patient that little could be done to ease his complaint.
wards of the Hospital he met with a patient who had been operated upon for varicose condition of the saphena and the poor patient said to himself: why cannot I get some relief as well as my yellow sufferer. On the following day when the surgeon was making his visit he asked him if some operation like that which he had performed on the leg of the other patient, could not succeed in this case; but the surgeon said that such an operation had never been performed although it might be possible to execute it. Sir everard advised him not to be subjected to the operation as he could be responsible for the result. At last after the patient entreatling him to attempt something to alleviate his suffering, the operation of cutting upon the vein for varicocele was performed for the first time and succeeded; slight feverish symptoms but followed, but the patient soon left the hospital completely cured. This is an example to show how some
Sufferers will submit to any kind of treatment when there is the least hope of success.

With respect to the treatment of varicose state of the saphena, there have been many plans adopted by different surgeons. Few diseases have more attracted of late years the attention of medical men than dilatation of the veins of the inferior extremities as one belfrom the various modes of treatment which have been proposed.

Surgeons in most countries, but especially in Britain have carefully studied the disease and have attempted different modes of treatment from the most lenient and harmless to the most painful and sometimes serious. The object which we aim at in all these plans is to remove the column of blood from the diseased vessel, either by supporting the vessels or by directing the blood through other channels. One mode is incorrectly termed the palliative plan, the other the radical cure. We know that the palliative treatment if
adopted early not only relieves the disease for a time, but gives rest to the valves, allowing them to regain their normal size and the matter plastic become absorbed in some cases. As an example I may state that of a lady who while travelling on the continent was taken with weight and aching pain in the legs, she could not understand what it could be, and she therefore became anxious about her suffering, especially when in the erect position. She consulted a Physician who at once saw the cause of her anxiety. He ordered her rest for some time and elastic stockings were afterwards applied and kept on for a long time without much discomfort. They were at last removed as she thought they were then useless, the varic has never appeared since although she has travelled and experienced a good deal of fatigue since they were removed. This instance shows that by the palliative mode of treatment, we have a radical cure effected and far superior to all the operations which have been attempted.
Such a successful case is of rare occurrence still the reported cases where the pain has never reappeared, where the limb is well supported and tonics administered to improve the tone of the weakened tissues and especially if the bowels are well regulated, for if the iliac veins are compressed by the accumulation of feces in the large intestines, it is certain that their tributaries must suffer an undue pressure from within as there is some impediment to the return of blood from the extremities; if this be removed, the veins will soon regain their normal size, but if allowed to persist too long there irreparable mischief is done in the tissues forming the walls of the vessels. In what is termed the palliative mode of treatment—our object is to support as efficiently as possible the dilated veins so that they may be assisted in performing their functions. The pressure must be effected equally in the whole length of the limb, for if pressure is exerted more in one part than in another, one cause more mischief than good by impeding the flow of blood in its natural course.
This object is obtained by the application of a proper roller, but as it requires the assistance of the surgeon daily to apply it, the elastic stockings are less troublesome and effect the same purpose; care must be taken in selecting them. They must fit equally in their whole length and the measure of the limb must be taken in the morning before rising, as in the erect posture the leg would enlarge and after some time, the stocking would become quite loose and useless. It is a little point which has been neglected in many cases, the patient complaining of as much annoyance as before. Another mode of treatment which has been suggested by Mr. Martin deserves notice as it seems to answer its intended purpose, which is to support the vessels in various parts of their course and help the alimentary vessels to perform their functions: it consists of an elastic band of the hand's breadth which is wound spirally round the limb, commencing from the foot upwards, but if can be not taken to rise a vestal linen first next to the skin it is apt to become loose. Sir Benjamin Brodie proposed a palliative
Plan of treatment which has been considered by those who have attempted the experiment to be successful in curing ulcers in most cases. It consists of adhesive plaster spread on leather, and bands of adhesive plaster of 5 inches width applied spirally round the limb. A patient found it too comfortable that it was applied during 7 years and at the lapse of that time the ulcer had disappeared. Many other modes of treatment have been attempted, such as supporting the vein where it passes into the saphenous opening by pressure with pads at the ankle joint but they have not been so successful as was anticipated, although they removed to some extent the pressure from within. But in cases where there is no chance of relief from this artificial support, or where the veins threaten to give way in any part of their course, or where we have an indolent ulcer as the consequence, which shows no disposition to heal under any kind of treatment by astringent and stimulating applications, then some operation on the
venous trunk must be excited. The first mode of radical cure attempted was the division of skin and vein and the application of a compress over the incision so as to stop the bleeds which would occur; at the same time placed over the divided ends put them in such a position that they unite by lymph thrown out from their extremities; in this mode of treatment there is nothing provided to hinder the absorption of pus from taking place and caustic pyrazia which he used was the cause to fatal in cases treated by Sir Benjamin Bodie, that he renounced the operation and attempted the caustic issues over the vein; this plan of practice did not either answer for then we had sloughing of the tissues and of the vein and lesions serious resulting to that this plan was not adequate to the little benefit obtained. Then on the fact that a subcutaneous incised wound is more likely to heal favourably, the vein was divided subcutaneously with a tenotomy knife and
a compress applied, but in this case there was no provision that pain might be absorbed. In some cases treated on this plan we had pyæmia; in others the vicarious secretions produced coagulation of the blood in the vein and in this manner it was separated from the mass of the blood; inflammation and ulceration of the surrounding tissues took place, and the morbid matters were removed with the coagula, but in other more unfortunate cases the coagula were liquefied after a short time, and then we had a general poisoning of the blood through these vicarious secretions.

Another mode of treatment was adopted on the same theory as obliteration of an artery with a ligature. This manner of obliterating a vein was considered for some time an advance in surgery, until cases of pyæmia or diffused inflammation became frequent and then its former advocates deemed it to such an extent that this practice was abandoned.

Sir Astley Cooper had such an unfavourab
The opinion of the operation that he said: the surgeon who attempts to tie a varicose vein deserves to have a ligature tied round his neck. Then for a long time no operations were performed on diseased veins, until 1853 when Mr. Lee adopted the plan of passing a needle under the vein and making a figure of 8 ligature round it, cutting the ends and pla-
cing lint underneath so as to protect the neighbor-
ing tissues. The blood was allowed to congregate
and puncture was then made in the vein so as
to allow the blood to escape. In this case there
is provision so as to exclude the diseased secre-
tions from absorption. The following may be
given as an example of this mode of performing
subcutaneous section of veins: H. B. a
private came under Mr. Lee's care on the
18th Feb. 1857. About 4 years previously he
had found the left staphylo to swell on
account of heavy marching as he supposed,
he did not come under treatment until 6
months previous to his admission, when he
was admitted at Port Fitt Hospital, where he
had an elastic stocking applied, 6 weeks
after there was no change, and he was dismissed from the army as incapable of performing heavy marching, he came under Dr. Lee's notice when a tumour of the saphena vein presented itself near the internal condyle of the femur and the size of a chestnut, the vein over it was very thin and there was a fear expressed that it might burst suddenly and endanger his life. On the 21st Feb. 2 needles were passed under the vein below the knee; the veins were allowed to adhere and a coagulum formed when an incision was made between the two needles; on the 26th the 2 needles were withdrawn and a few days afterwards the patient was allowed to get up. A fortnight afterwards he was dismissed cured. The vein was obliterated and a coagulum formed the vein feeling quite firm under the finger and since then he has exerted himself without any recurrence of the complaint. Then this operation was modified by making a subcutaneous incision of the vein after the needle had been introduced, and allowing the blood to escape between the needles; the veins were soon obliterated and the patient was soon dismissed.
perfectly cured. In some cases, a few cases a few days after the veins had been obliterated by the needles, severe pain, redness and swelling appeared and the patient became restless and restless. These were the premonitory signs of inflammation of the veins and they give an warning of what is taking place; it is therefore necessary to watch one patient, for as soon as inflammation is developed, the needles must be removed and the antiphlogistic treatment resorted to; as perfect test which is indispensable, bleeding if the case becomes serious, but compen-sations alone will generally be required with moderate diet and avoidance of all stimulants if the patient is phlethoric, but in anaemic patients where the blood is thin and the heart's action weak the most nourishing and stimulating diet is necessary, for in such cases if bleeding Mercury and other poisonous measures were adopted, the inflammatory symptoms would become aggravated. After inflammation has been checked, we can reapply the needles and accomplish a perfect cure. Sometimes inflammation supervenes on
Varicose condition of the veins, either from over-distension of the venous tissues or from local injury or by exposure to cold and damp, but in either case it is generally confined to a small portion of the trunk to that seldom any unpleasant symptoms arise. In this limited inflammation the same antiprosthetic treatment which I have been describing is required.

Many surgeons treat varicose veins by simply passing needles beneath the vein and applying the figure of 8 ligature, without division of the vessel. The disease has been cured in many instances by this simple mode of treatment, but it sometime fails. A firm coagulum exists which checks the complaint for some time, and the surgeon is surprised after a lapse of time to find the vein becoming gradually pervious and the evil assuming its former symptoms so that the operation is to be repeated. In some instances the needles have been reapplied at a time before obliteration was successfully effected. The recurrence of the disease appearing sometimes shortly after the needles had been withdrawn and the
Surgeon attributing this relapse from the too early removal of the needles: in other cases the dilatation having taken place after some lapse of time.

From the many cases which come under observation, the radical mode by substantaneous division after the needles have been applied has proved most successful. It is clear that a large clot in a vein is a long time before getting absorbed, and that it causes an obstacle to the adhesion of the coats, just the same as a coagulum in aneurysm, remains for a long period before removed by the absorbing process. And it is partly on the existence of this clot that a new mode of treatment in certain aneurysms has been adopted, by opening the back, removing the clots and placing a ligature above and below the aneurysm. Several cases of anterior aneurysms have been cured in this way without any evil effects.

Hemorrhoids. This disease consists of one or more bunches of dilated veins around the verge of the anus. It is not to be wondered at that this complaint is of such frequent occurrence when the lower part-
of the bowel is so vascular and often distended by the accumulation of gases, also in females the uterus becomes enlarged during pregnancy, or it may be increased in size by the various morbid conditions to which it is very subject; this increased size is the cause of its pressure on the inferior haemorrhoidal veins and the return of blood from the rectum is partly arrested; these veins have also this unfavourable peculiarity that they possess no valves to help them to propel onwards the blood towards the centre of the circulation. The sphincter, which is continually in action also partly retard the current of blood. We can therefore find many prolific causes of this complaint.

Haemorrhoids are divided into external and also into internal, according as they appear external or internal to the sphincter. This division is of practical importance as the treatment is different in each case. External piles consist of dilatation of the vessels around the anus, and the subsequent infiltration & thickening of the surrounding
subcutaneous cellular tissue. These veins present themselves as distinct tumours around the verge of the anus which gradually increase, and if inflammation supervenes the patient experiences the most agonizing pain. If the ulcer becomes overdistended there will be great suffering at the closet from the peculiarly sensitive character of the skin around the anus; if they are in a quiescent state very little discomfort will be felt, perhaps slight itching round the anus which will scarcely be noticed by the patient, should inflammation from any cause take place, these symptoms will manifest themselves and rest, the application of leeches will be required, and subsequently ointments to relieve pain and encourage bleeding. Opium will be of service to give rest and mitigate the suffering, after a few days mild saline purgatives will greatly aid in relieving the symptoms. If external piles have existed some time there will be felt a firm tumour containing coagulated blood which may cause pain during the evacuation of feces. This may be
Believed by the excision of such a tumour and some of the relaxed tissues if they are too abundant, but taking care not to remove too much as Mr. G. Smith observes that we may cause a more serious complaint than that which we are attempting to remove. He mentions the case of a lady who came under his care and who had been operated upon by a Physician who did not seem much acquainted with surgery, for he removed such an extent of tissue as to cause complete obstruction of the bowel and the orifice of the anus was completely closed, and the natural folds were entirely destroyed. When the tumour had been removed with the caution to remove more likely less tissue than too much as the cicatrix which follows always contracts to some extent afterwards, we find no haemorrhage as the blood is coagulated some distance in the vein. Should bleeding take place if the tumour is removed before the blood is coagulated there will generally be very little difficulty to restrain it, either by cold, astringents or the actual cauterity. The state of the bowels is to be attended to in haemorrhoids, if too much delayed the same
Inconvenience will ensue as if they were consti-
trated. In the former state, astringents and opium
especially are to be administered and in the latter
salts and cooling instruments are to be prepared.
Draughts especially are being partly deprecated.
When these vascular tumours are not attended with
inflammation, local astringents, as sulphate of
sulphate of
vine, tannin and compound jelly ointment are
beneficial in relieving the complaint by drawing
up the relaxed tissues.
With respect to internal piles they are the most
troublesome and most difficult to deal with.
As they are placed within the sphincter and not
very of access, should they become large we often
see them protruding beyond the sphincter which
compresses them to such an extent that exacer-
ating pain is occasioned, we may have mortifi-
cation of the protruded part; they are also liable
to frequent bleeding which will cause great
weakness and anaemia.
It is necessary that some treatment should be adopted
to if we wish to alleviate the pain which is always
present when these tumours protrude beyond
the sphincter, or to check the continual loss of blood.
A cold plan is to reach them well after their production and return these tumours within the
substance, applying astringents to as to improve
the condition of the tissue and administering
tones, such as the various preparations of iron
and the mineral acids, taking care to have the
bowels well regulated, for without this, all local
applications will fail in their effects. If this
causes no improvement we have a most invalu-
able agent in the strong nitric acid, which if
properly applied, never fails to relieve the com-
plaint; it was first used by Dr. Houston of Dublin
and subsequently by many surgeons who have
given a favourable opinion of its action. It re-
moves the tumours with little pain and no danger
and the cicatrisation which follows, a radical
cure is effected. Nor do the good effects stop
here, but in consequence of the breaking up of the
general mucous membrane which follow the
removal of the delayed and diseased part of its
surface, other causes are supported and reduced
in bulk. It is most useful in cases where the
surrounding tissues are not much thickened by
the infiltration of lymph, as in this case a great amount
of irritation must ensue where much coughing must take place. In bleeding galls it is inva-
larable and soon produces its effects. Should the
mumour protrude it is to be wiped dry and told
the time necessary so that the acid may act directly
on the tumour. Or if within the sphincter a spec-
culum is necessary. We must not apply it to
an extensive surface at once as it may cause
great irritation and fever. The size of a florin
is sufficient at one sitting, then oiling the
parts before returning them so that the acid may
not yet in contact with the sound tissues.
The bowels are to be kept for 3 or 4 days and
then castor oil may be necessary. The good effects
will often be experienced after a few days, should
it be necessary the acid may be reapplied.
If the tissues are thickened the double ligature is
the most approved plan to proceed. After the ligature
has been passed through the middle of the tumour,
each half is to be tied separately and little pain
will be felt if it is properly executed. A surgeon
remarked that the pain which sometimes ensues
is from the surgeon's erroneous idea that if tied
 tightly pain will be great, but such an opinion
In each case it should be tied firmly and by this process the tumour is deprived of its vitality and sloughing will take place in a few days; cicatrization will soon be completed, but if tied loosely the tumour will still obtain nourishment and ulcerate slowly, causing the severe irritation which is experienced in all treated cases.