against section of the thyroid cartilage. In the first place, it may be taken for granted, that no one would at the present day attempt it for disease alone, when either tracheotomy or laryngotomy will afford all the relief desired. That objection may be, therefore, at once discarded as untenable. The tangible objections, however, which remain, are wounds of the vocal cords, and ossification of the cartilage.

Wounds of the Vocal Cords. To be sure, the point of the pomum Adami is not invariably sharp and prominent in all persons, and hence sometimes a possible difficulty of section fairly in the middle. If, however, the cartilage is divided carefully in the median line, there is very little risk of wounding either vocal cord. I have largely experimented upon the dead with a view to test the fact, and whether, in the old or the young, there is comparatively little risk of wounding the cords; but, of necessity, some care and attention are requisite, otherwise a little nick may be given to either cord at its point of origin, especially, as sometimes happens, when both cords are in close contact at that situation. I do not imagine for a moment that the wound of the edge of a cord would be an injury of much consequence to phonation; far otherwise would it be, if the cord were divided transversely across—an injury that is actually impossible in central section of the cartilage. The objection to the operation, therefore, on this score, is of the smallest weight; yet an effort should be always made to avoid any unnecessary infliction of injury to such a beautiful and important piece of mechanism as a vocal cord.

Ossification of the Cartilage. In this we have a genuine obstacle, varying in degree according as the state of calcification or true ossification is advanced or retarded. A calcified larynx will be more easily divided than one ossified, and this can be determined by the age of the patient. Calcification will occur in comparatively early adult life if circumstances are present to induce it, which may not now be dwelt upon. So will ossification in the gouty. Hoarseness and obstruction by polypi, if extending over a period of years, are prone to induce deposit of calcareous material in the cartilage. In children, or the comparatively young, an ordinary scalpel or blunt-pointed straight scissors, will be found sufficient to effect division. In the calcified condition, a pair of stronger scissors will answer, with good steel blades. But, in the elderly and aged, where the ossification sometimes is actually as compact, I was going to say almost as steel, a fine and delicate, slightly convex saw will be found to answer the purpose. The operation then becomes comparatively simple; there is little or no bleeding, as there are no arteries or veins of any consequence to wound, and the divided halves of the cartilage can be held asunder by bent spatulæ or retractors, whilst growths or polypi are being removed by curved scissors. Although perhaps the operation, at first sight, seems to be formidable, it ought to be one of the simplest of those attempted upon the neck. It should never be attempted, however, until the patient has been first subjected to the operation of tracheotomy, which allows of the subsidence of any irritation, congestion, or inflammation, that may follow the removal of the growths. Tracheotomy, moreover, much simplifies the proceeding which this paper is intended to illustrate.

In division of a calcified or ossified larynx, forceps should be avoided, on account of the irregular and spiculated edge which they produce, occasionally with detachment of small fragments which are inimical to subsequent union. This is obviated by employing the saw.

The chronology of the operation considered in the foregoing remarks, to the present time, so far as I am aware, will stand thus.

Prior to the Use of the Laryngoscope.

1. Brauers of Louvain, 1834.
2. Ehrmann of Strasbourg, 1844.
3. Buck of New York, 1851.
4. Case at Heidelberg mentioned by Pirogoff.

Aided by the Laryngoscope.

1. Buck of New York, 13th April, 1862.
2. Rauchfuss of St. Petersburg, 1862.
3. Sands of New York, 28th February, 1863.
4. Busch of Bonn, 24th June, 1863.
5. Debrou of Paris, 7th November, 1863.
6. Boeckel of Strasbourg, beginning of 1864.
7. Gibb of London, 20th April, 1864.
8. Ulrich and Lewin of Berlin, 31st October, 1864.
9. Gilewski of Cracow, December 1864.
10. Gouley of New York, 26th February, 1865.

In conclusion, it may be said, that the operation performed in my case not only relieved the general symptoms, but prolonged life, which tracheotomy would have done but for a few weeks only, as the growth in the larynx would have produced, in a comparatively short time, the dangerous symptoms that occurred in the latter part of the patient's history. It, therefore, may be looked upon as having fairly accomplished its end.

Original Communications.

DISEASE OF THE SUPRARENAL BODIES.

By Henry Hare, M.D., Great Baddow.

Nearly two years ago, a man named W. Broughtwood, aged between forty and fifty years, came to my house. My brother, Mr. Lancelot Hare, who was staying with me, first saw him, and then asked me under what disease I considered that the man was labouring. We both arrived at the same conclusion; viz., that Addison's disease was the complaint.

The appearance which he presented was that of a man extremely tanned in the face. The conjunctiva, however, was quite white, pearly—different from that of a man suffering from jaundice. His hands presented the same tanned appearance as the skin of the face; the colouring terminated abruptly at the wrists, contrasting strongly with the white appearance of the skin of the arms. The colour of the skin of the chest and abdomen, and also of the back, was natural. The poor man did not complain of any pain. A feeling of lassitude was a prominent feature.

The treatment adopted simply consisted in supporting him, and in giving tonics. A generous diet—meat and beer—was ordered.

Some kind people were anxious that he should try if he could derive any benefit by becoming an in-patient at a London hospital. He accordingly entered Guy's Hospital. Under whose care he was, I do not know. He was seen, I believe, by Dr. Barlow. After remaining there some time, and receiving great kindness, he returned home, much the same as when he entered the hospital. It may be worth remarking that, when he was at the hospital, a blister was applied to the chest; and that, on his return to the country, the situation where the blister had been applied was clearly indicated by the tanned appearance of the skin. The appearance of the evacuations was natural. The urine was not albuminous.

On August 27th of this year, he was reported as

suffering from vomiting, and as having had one fit of convulsions. During the night, he had a second; and on the following morning, a third; soon after which he became semi-comatose, and died, apparently without pain, on the 28th.

Post Mortem Appearances. To my friend Dr. Mackintosh I am much indebted for conducting the *post mortem* examination.

The body was much emaciated, especially in the face; but the abdominal integuments contained a very large quantity of fat.

The lungs were emphysematous; and there were adhesions (pleuritic) to the thoracic parietes.

There was most marked fatty degeneration of the heart, which was small.

The liver appeared healthy.

The spleen was soft and friable; and, after making incisions, a large quantity of fluid escaped, in colour resembling frothy mulberry-juice, and imparting an oleaginous feeling when rubbed upon the hand.

The kidneys were enlarged.

The right suprarenal capsule was greatly thickened, and nearly half the size of a normal kidney. There was an abscess at the lower part, attached to the liver and the posterior wall of the abdomen. On making a section of the upper part, a large quantity of tubercular, cheesy-looking matter, presented itself, which could be removed like the yolk of a hard boiled egg from the white portion; and the walls of the bed in which this was contained were in thickness of about the same relative proportion as the white of a hard boiled egg would bear to the yolk—firm in texture, and of a whitish blue colour. A gritty feeling was imparted on first coming to the yellow tubercular matter.

The left suprarenal capsule was not so large, and contained no abscess; but, in other respects, presented the same appearance as the right. There was more gritty matter in the left suprarenal body than in the right one.

CASE OF INTERNAL HÆMORRHAGE.

By G. Mallett, F.R.C.S., Bolton.

At an early part of this year, I was requested to meet in consultation Mr. Clark of Farnworth, on the case of the housekeeper of a gentleman in the neighbourhood.

Arriving at the house a few minutes before my friend, I awaited his arrival in the drawing-room. I had not been there more than one or two minutes before one of the servants rushed into the room, and begged me to go up directly as the patient was dying. I went at once, and found the patient moribund. She gasped three or four times, and then all was over.

The patient was about 50 years of age, very stout, and ghastly pale. I was informed that for three or four days she had complained of pains in the abdomen, accompanied with weakness and a feeling of faintness. The urine was high coloured, but in other respects normal. The bowels had been regularly moved; and there was nothing unhealthy in the appearance of the evacuations. There was no indication of any particular functional derangement or disease. From the absence of any symptom sufficiently severe to account for death, and from the presence of excessive paleness, we at once diagnosed internal hæmorrhage; but in what part there was no indication. There was no cough nor pulmonary hæmorrhage, no bleeding from the stomach, bladder, rectum, or uterus.

An examination of the body was made; and upon opening the abdomen, all appeared natural. The omentum completely covered the small intestines; but the stomach and transverse arch of the colon were exposed, and to all appearance in a healthy condition. Upon raising the omentum, the whole of the small intestines was found to be perfectly black—not merely dark coloured, but black as ink. The peritoneal covering was smooth, glistening, and free from any trace of inflammatory action or other abnormal appearance. A portion of the intestine was removed and slit open. Under the muscular coat—that is, betwixt it and the mucous membrane—was found a layer of blood about one-fifth or one-sixth of an inch in thickness; extending from the pyloric orifice to the colon, and then ending suddenly, as if divided with a knife from the adjacent parts; the stomach and colon being perfectly free from any unnatural appearance. Every portion of the intermediate intestine was encircled with the layer of blood, which, by its pressing upon the mucous membrane, caused the intestinal canal to be very much contracted. The interior of the bowel was not only very much contracted, but also nearly empty, and contained not a trace of blood. There was no large accumulation of blood in any part; but the layer appeared through its whole course to be of equal thickness. Neither could we discover the slightest indication to lead us to the primary lesion. We, therefore, came to the conclusion, that the true pathological condition was such a weakening of the tone of the vascular system of the small intestines as to allow a general exudation; but, if this be the true solution of the case, why should that weakened condition cease so suddenly at the commencement of the duodenum and termination of the ileum?

Animal Vaccination. In a paper lately read by Dr. Lanoix, the author described the results he had obtained during a period of six months with lymph supplied by heifers, and remarked that he had succeeded in 80 out of 380 revaccinations. He recorded the equally favourable returns forwarded to him by MM. Michel, physician of the Institution of Fontenay, a branch establishment of the College of Sainte-Barbe in Paris; Dheré, physician of a seminary for young ladies; Millet, physician of the Agricultural Penitentiary of Mettray; Chipot, of Châteauneuf-sur-Loire; and Dr. Verrier, member of the Committee of Vaccination at Rouen. At Fontenay, characteristic pustules were produced in 76 out of a total of 400 revaccinated children. In 71 subjects between the ages of 14 and 20, revaccination succeeded in 31. In 200 adults aged from 20 to 40 years, the operation was successful in 97. The proportion of successes between the ages of 40 and 50 was 36 per cent., and of five revaccinated after the age of 50, characteristic pustules were developed in 2. M. Lanoix remarked, in conclusion, that his personal experience and his meditations on the subject strongly confirmed his belief that the propagation of vaccine from heifer to heifer is always attainable, and in quantities sufficent for every purpose; that the lymph does not deteriorate, but preserves its activity for a longer time and with greater certainty, in its passage through the system of animals than through that of man; that first vaccinations are almost invariably followed by positive results, and that revaccinations supply an average of success more considerable than that obtainable with lymph gathered from the human subject; that vaccination with the matter derived from heifers is an easy operation, which, during epidemics of small-pox, affords a most valuable resource to check the progress of that formidable disorder on account of the large amount of lymph which can at will be supplied wherever it may be required. (*Journal of Practical Medicine and Surgery.*)