that if partially immobilised for a short time in contact with similar tissue, firm union will take place between the two opposed surfaces.

The healing of an oesophageal wound is of a much slower description. Like an intestinal wound, an oesophageal one is septic from its making; unlike it, its exterior is not bathed in a fluid of such markedly phagocytic character as the peritoneal exudation. For these reasons the wound will in all probability become septic by infection from its depths, no matter what precautions may be taken in making the external wound, in which case healing must take place by secondary union of granulations and be necessarily slow. Why weaken the patient by denying him anything but rectal nourishment for the first couple of days? To be effective, the rest of the oesophagus should extend over a much longer period. Should a septic union take place a certain amount of union would take place in that time, but such an event is unlikely. The passage of a tube is supposed to disturb the parts and favour leakage from the oesophagus. The smooth rounded end of a soft rubber catheter cannot hitch at any point of a well-sutured wound, cannot from its small size distend the wounded tube unduly. The resistance which is felt when passing a tube through such a wounded portion is quite unlike the "grip" of a stricture. It is much more probable that in such a case the loss of the "carrying on" power of the oesophagus, due to its muscular contraction, is lost when the neighbourhood of the wounded portion is reached, and that the tube then only moves forward on pressure from above. The difference between the ease of its motion under the two conditions gives rise to a false impression of tightness. On these grounds I would submit that rectal feeding for some days in these cases is probably a useless precaution and productive of little good. The factor of the discharge from the wound in the case here recorded is scarcely an argument against early tube feeding, as it was due to a small slough of the edges of the wound, probably caused by strangulation of its edges by the double continuous suture employed, when the part became swollen by septic inflammation. Had ordinary catgut been used for suturing the oesophagus, its rapid softening under septic influences would have prevented such an occurrence taking place.

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**NASAL OBSTRUCTION IN ADULTS.**

By **MAJOR G. A. MOORE.**  
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There are few affections of the nasal passages during the course of which the symptoms of obstruction are not complained of by the sufferer: whether the stenosis be due to hypertrophy of the turbinate bones, nasal polypi, irregular, abnormal, or deflected septa, or kindred causes, the symptoms are very similar.
In the Army, it is true, we do not come across many cases of nasal obstruction, but if met with, a very thorough treatment is imperative. The work demanded of the recruit or soldier, nowadays, is trying—early morning parades, doubling drill, manual exercises, gymnastics—all exert a very considerable strain on the different systems of men who, in the majority of cases, have not arrived at their full development, and in whose bones the process of ossification has not been completed; in such cases the evil consequences of nasal obstruction are soon apparent. The respiratory system is the first to be affected, the nostrils being no longer able to take in the amount of air necessary for the proper aeration of the blood, the mouth is called upon to act as the chief inspiratory agent; so far, not much harm has been done, but the air now entering the lungs is no longer warmed, or filtered, and coughing and other signs of pulmonary irritation present themselves; the extraordinary muscles of inspiration are called into use, and acting, as they do, on structures unfitted for such strain, distortions frequently result; thus, pigeon-breast may be brought about, or, again, hernia. The mouth, from being so constantly used, tends to remain more and more open, the nostrils, largely relieved of their duties, become atrophied, and their openings narrow and slit-like; and so the condition is established—mouth-breathing, inspiration of cold and impure air, hurried and shallow inspirations, atrophied and collapsed nares. In such cases, and especially if exertion be taken, the circulatory system does not escape, the blood meeting in the lungs colder and more impure air, fails to take up the gases necessary for its proper renewal as quickly or as freely as under normal conditions, with a result that the heart-beat is quickened, and frequently palpitation results; if the strain be further continued, breathlessness, and a sense of suffocation, are experienced. Other symptoms suffered from in cases of pronounced nasal obstruction are many and varied; few patients escape recurrent attacks of acute, or subacute, rhinitis, a more exhausting complaint than which it is hard to conceive, with its frontal pain, sense of weight over the bridge of the nose, the constant and profuse watery discharge, the loss of smell, and perhaps painful ocular symptoms, one and all tending to make the patient thoroughly wretched and worn out.

As to treatment, no stereotyped rules can be laid down for these cases; in each the treatment to be carried out will depend on the exact anatomical, or pathological, conditions present. Thus, if obstruction be due to an overgrowth of an intranasal structure, e.g., a hypertrophied turbinate bone, this must be reduced in size or removed, and for this the use of the galvano-cautery will be probably sufficient, repeated applications being made, if necessary. If the obstruction is still larger, partial division with a strong scissors, or turbinotome, the removal of the bone being completed by a strong snare, will be the best procedure. Finally, if a more radical treatment seems imperatively indicated (as in Case IV.), a free removal by the nasal spokeshove gives excellent results. In this proceeding the
haemorrhage, as a rule, is very free; if, however, full attention has been paid to antiseptic precautions, and the nostril is plugged immediately with well-oiled gauze, this need not cause alarm. Should the obstruction result from causes such as polypi, cysts, tumours, foreign bodies, these must be dealt with by snaring, curetting, cauterisation; if the septum be at fault, whether from spurs, exostoses, deviations or other abnormalities, these should be removed, or corrected, the greatest care, of course, being taken to avoid actual damage to the septum itself. The aim in all these cases is "Nature's nasal air-way must be re-established," and the almost certainty of being able to attain this result will justify some risk being run. The relief experienced by patients who for months or years have been deprived of the power of breathing freely through one or both nostrils, is incalculable, and one is well rewarded by the feelings of gratitude such patients express.

To have even a slight idea of the discomfort of nasal obstruction, let one tightly pack one of his nostrils with gauze for a quarter of an hour, and try to carry on his ordinary work, or to run, or do gymnastics; he will very soon begin to experience some of the disagreeable symptoms touched on above, and will be glad to discontinue the experiment. The following cases met with in the last few months are good illustrations of the disabilities and discomforts arising in cases of nasal obstruction. An account of some measures taken for their remedy is also attached.

Case I.—Boy B., Gloucester Regiment, came to hospital suffering from considerable swelling and great pain over the upper part of the bridge of the nose, of constant headaches and frequent attacks of a copious watery discharge from the nose. His chief complaint, however, was that for the last eight years he had been unable to breathe at all freely through the right nostril, and that he felt unable to do his drills, doubling, gymnastics, &c., as he found the greatest difficulty in getting his breath. The men in his barrack-room complained that he woke them nightly by his loud snoring. The boy was very anaemic, somewhat vacant in manner, and a little deaf. I found that on both sides the inferior turbinate bones were large, but not sufficiently so to obstruct the air current. The right middle turbinate bone was immensely enlarged and inflamed, even touching the septum, and almost blocking up the whole air-way on that side.

The respiratory utility of the right nostril was about one-eighth of normal.

In the post-nasal space I found a small central pad of adenoids.

The case was watched for some days, light, unstimulating diet, soothing nose-washes, and aperients were given, and much of the inflammatory condition subsided; the obstruction, however, in the right nostril, and the pain over the bridge of the nose still continuing, on June 18th I again examined the turbinate, and found that it was permanently enlarged and hypertrophied, and accounted for the obstruction which existed. Under cocaine 15 per cent. and adrenal 1 in 1,000 (equal parts) and using Heath's...
curved scissors, I divided a large portion of the right middle turbinate from below upwards, completing its removal with a snare. Haemorrhage was very free, but controlled by tightly packing the nostril with oiled iodoform gauze, which was left in for thirty-six hours. For the first six hours the boy suffered a good deal of pain, and the evening temperature was 100° F.

On June 20th I removed all dressings. He said he had slept well and felt no pain, and the men in his ward informed me that he had not snores.

Convalescence was uninterrupted, the nostril was washed out twice daily with warm alkaline lotion, and the débris of bone came away. He left hospital on June 24th.

On July 26th I saw Boy B. He had been at duty some weeks, and stated he felt much improved in health and better able to do his work than he had ever been; that he could now breathe freely and never snores, nor had to fall out on parade; that the continual frontal pain had quite left him, and he had no discharge from the nose since the operation. The anterior cut surface of the turbinate was healed, and the respiratory utility of the right nostril was now seven-eighths of normal and will further improve. He sails for India in a few weeks.

Case II.—Private L., Essex Regiment, came to consult me about his nose, complaining that by his snoring the men in his room were kept awake, and, as a consequence, his life was somewhat uncomfortable. He said that for years he had breathed almost entirely through his mouth, as his left nostril was so "blocked up"; he suffered also from constant headaches and frontal pain. He was anxious to serve on in the Army, but was constantly being checked by his superiors, and had even to fall out on parades and at gymnastics, as he was so "short in the breath."

On examination I found the patient very anaemic, the nares narrow and slit-like; the respiratory utility of the right nostril was about one-third of normal, that of the left about one-fifth.

The middle turbinate bones on both sides were much enlarged. The post-nasal space was narrow and contracted and traces of old adenoids were noticed.

On June 18th, under local anaesthesia of cocaine and adrenal, I found that the condition of affairs was much as described in Case No. 1, viz., a very large left middle turbinate bone pressing (when inflamed) on the septum, and causing almost complete obstruction of the nasal air-way.

Using Heath's curved scissors, I passed one blade above and one under the lower surface of the left middle turbinate, as far back as possible, and divided it from below upwards, completing the removal with a strong snare. The nostril was packed with gauze and the after-care of the case was similar to that in Case No. 1.

The patient felt pain for six hours after the operation; all snoring ceased, and he soon returned to duty.

July 24th.—Private L. has been at duty for some weeks. He has greatly improved in colour, has gained weight, and there is no discharge
from the nose. He stated he could now do all parades with ease, and never felt so well in his life. He has ceased snoring and has had no headache or frontal pain since the operation.

Respiration through the left nostril is now normal.

CASE III.—Private R., Essex Regiment, was admitted to hospital on March 10th. While still under three months' service he had been noticed by the Inspector of Recruits as unlikely to be ever fitted for the duties of a soldier on account of his defective respiratory capacities. His nares were narrow and slit-like, his colour white, and he became breathless on the least exertion. On examination, I found that his nasal obstruction was almost entirely caused by the presence in the right nostril of an enormous inferior turbinate bone which, projecting inwards, almost touched the septum, and interfered with the inspiratory nasal air current. In consequence, he had in a great measure become a “mouth-breather,” and snored greatly at night. The patient begged not to be put out of the regiment, in which his father had been Sergeant-Major, and his brothers were now serving. I proposed operation, and on March 20th, under chloroform, using Heath's curved scissors, I divided the anterior one-third of the right inferior turbinate bone, and completed its removal with a snare. I packed the nostril carefully with iodoform gauze; at the same time I removed a large pad of adenoids. The case did well, and the patient was seen a few weeks later by the Inspector of Recruits, who was entirely satisfied with his altered appearance and respiratory capabilities. This man has gained in weight, and leaves shortly to join his regiment in India.

CASE IV.—Private S., Middlesex Regiment, was sent from Mill Hill, complaining that he was unable “to double,” or to do his parades and gymnastics, owing to inability to breathe through his right nostril; also of constant frontal pain and a sense of oppression on exertion. He stated that for years he has been troubled by this difficulty in breathing through his nose, but that now matters were worse than ever. He had no desire to leave the Army, and begged for any operation likely to benefit him.

On examining the nose, I found the septum deflected towards the right and much thickened, the right inferior turbinate bone was enormously enlarged and nearly touched the septum, almost entirely obstructing the air current in the right nostril; on the left side the inferior turbinate was also enlarged and obstructed the air-way to an extent of about one-third.

The post-nasal space was normal. Under local anaesthesia, cocaine 20 per cent. and adrenal 1 in 1,000, I thoroughly explored the right nostril, and found the obstruction to be entirely due to hypertrophy, and permanent enlargement of the anterior two-thirds of the right inferior turbinate bone. Under chloroform, I inserted the largest size nasal spokeshave, and passing it well back to about the centre of the bone, drew it quickly forward, removing, by doing so, a large piece, about two inches, of the inner surface of the middle and anterior portions of the bone. Free
Clinical and other Notes

hemorrhage followed, but was controlled by plugging with gauze. For some hours the patient had a good deal of pain. After four days dressings were not required, and the nostrils were irrigated with warm alkaline lotions. The patient was placed on generous diet and suitable tonics.

July 23rd.—I examined Private S. to-day, three weeks after the operation. He seems better in every way, is of a much better colour, and says he eats and sleeps splendidly. The raw surface of the inferior turbinate has healed over and no crusts have formed. He says he feels better than he has done for years, and can now do his parades with ease and without effort; that he sleeps without snoring, and has had no frontal pain. Nasal respiratory capacity in the right nostril is now normal. He has been taught to wash out his nostrils with alkaline lotion.

A CASE OF CEREBRO-SPINAL FEVER.

By Lieutenant-Colonel N. C. Ferguson, C.M.G.

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This was a case of sporadic cerebro-spinal fever of the chronic type, and was under my direct personal observation throughout (ninety days). It occurred in the person of a trooper of the 4th Dragoon Guards, of five years' service, two and a half of which were spent in India.

Diagnosis.—The case was very characteristic. Patient, who was in rude health, was suddenly attacked, while grooming his horse, with severe headache and vomiting. He had a history of having suffered from ague in India in September, 1903, and having had some attacks since, and the case was at first looked upon as one of malarial origin. A few hours later the extreme restlessness, severe headache, and pains in the back, with the appearance of a general erythema, suggested the onset of one of the acute specific fevers, and a petechial rash over arms and legs on the fourth day recalled somewhat the appearance of typhus fever. A few days' observation negatived the idea of this disease, and a probability of enteric was considered. Widal's reaction was not present, the tongue was perfectly clean and moist, and the only symptom of enteric present was the pyrexia. About the third week Kernig's sign was observed as being very well marked, and although lumbar puncture was performed three times with negative results, the subsequent onset of symptoms, and progress of the case, left no doubt as to its nature, and lumbar puncture on the sixty-ninth day showed Diplococcus intracellularis present in large numbers in the fluid extracted.

Symptoms.—The accompanying chart shows the course of the pyrexia, and the other symptoms noted were as follows:—

Nervous System.—Frontal headache of the most terrible severity was the leading symptom in the earlier days. It was accompanied by great