THE CAUSE OF ENLARGED TONSILS AND ADENOIDS IN CHILDREN AND THEIR TREATMENT WITH LYMPHATIC GLAND EXTRACT.

(PRELIMINARY REPORT.)

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MANY theories have been put forward as to the cause of enlarged tonsils and adenoids, but I think it is possible to rule all of them out conclusively. For this reason I am advancing a new theory, which may have some connexion with their enlargement.

By analysing some 3,000 cases in children suffering from enlarged tonsils and adenoids, it became apparent that by far the commonest ages for the children to suffer from enlarged tonsils and adenoids is from 2 to 5 years, but that many infants, even from birth, have enlarged adenoid growths in the naso-pharynx.

To find out at what age the adenoid tissue is developed I have obtained a number of fetuses of different ages and dissected away the posterior wall of their naso-pharynx, where the adenoids subsequently develop. The tissue thus obtained has been examined microscopically, and I have been able to find that adenoid tissue was present in every fetus after the age of 6 months. This being so, I think we can say that every child is born with adenoid tissue at the back of the naso-pharynx, but that it grows for some reason in some children more than in others.

The mere presence of adenoids does not constitute a disease, and they only become pathological when they hypertrophy and cause trouble. In infancy and childhood the lymphatic structures are at their maximum exactly at the time when enlarged tonsils and adenoids are commonest, and it is one of the functions of the lymphatic tissue to form the lymphocytes. Now it is a peculiar fact that children with enlarged tonsils and adenoids rather have a diminution of lymphocytes in the blood, and there is also an increase in the total number of leucocytes. For this reason it looks as though the enlargement of the tonsils and adenoids were an attempt on the part of Nature to supply the deficiency in the other lymphoid tissue of the body. At the age when enlarged tonsils and adenoids are commonest (2 to 5 years) the lymphocytes are normally beginning to decrease from the high percentage found in infants to the adult standard, and again, the thymus is also decreasing in size. I think these two facts support the view that the adenoids and tonsils are an attempt to augment the lymphoid tissue of the body. It is also a common fact that when the enlarged tonsils and adenoids are removed carefully by a competent surgeon before the age of about 5 years they are very liable to recur, so that Nature, as it were, makes a second attempt to raise the amount of lymphoid tissue, or at least supply the body with some secretion from the lymphoid tissue, which it needs at this age.

If we could supply these children with lymphoid tissue artificially, there would be no need for the enlarged tonsils and adenoids, and in consequence they would go down, and it is on these lines that I have been working. Messrs. Burroughs and Wellcome have made me some lymphatic gland extract, exactly on the same lines as they make thyroid extract. Up to the present I have treated about 30 cases of enlarged tonsils and adenoids with this lymphatic gland extract, gr. v, three times a day. No bad effects have been observed, and nearly all the children have improved in a very satisfactory way; the snoring and noises in breathing have disappeared, and the tonsils have diminished in size.

This being so, I think it is well worth while pursuing the treatment in a larger number of cases. In many instances of enlargement of the thyroid gland at puberty in girls, if thyroid extract be given the thyroid gland diminishes in size, showing that the gland enlarged to make up for some deficiency in its secretion, and that when the deficiency was made up artificially the gland went back to its normal size.

IODINE AS AN ANTISEPTIC IN TROPICAL COUNTRIES.

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In an article on strangulated epigastric hernia published in the BRITISH MEDICAL JOURNAL in December, 1910, I mentioned the beneficial use of a 2 per cent. solution of the tincture of iodine in skin preparation, as a preliminary to operation.

The following may be of interest, showing as it does the excellent results obtained by its use where preparatory antiseptic measures could not be adopted, and where the existing conditions were by no means favourable from an aseptic point of view.

Reclus, in *La presse médicale*, mentions the excellent results he obtained by its application in compound fractures, and quotes cases to substantiate his statement.

1. Early one morning a Bunyoro native came to my hut at Nimule to be treated for a crocodile bite. He had been down to the Nile close by to cut grass for his employer, an Arab trader. In stooping to do so, at the water's edge his right forearm was seized by a crocodile, but fortunately he was able to catch hold of a small tree with his left hand, and thus save himself from being immediately dragged under water. His call for help brought another native to his assistance, and he, by repeatedly belabouring the animal with a stout stick, succeeded in making the crocodile let go, and retire under water.

It was seen that he had sustained a compound fracture of both bones of the forearm in their middle third. The upper ends were protruding through the wound on the flexor side, the superficial muscles being extensively torn, but on the extensor side, beyond the skin and fascia being lacerated by teeth marks, the muscles escaped practically untouched. Embedded in the wound were small pieces of grass. From the nature of the wound I gathered that the forearm was seized by the front teeth of the crocodile, the hand, wrist, and lower third of the forearm being at the time inside the animal's mouth.

The wound and adjacent skin was thoroughly syringed, and washed with a 2 per cent. solution of iodine for about fifteen minutes. I then reduced the fracture and stitched up the wound, dressing it with plain sterilized lint and applying splints. The arm was bandaged to the side, and the forearm fixed across the chest, as it was impossible to get him to remain in a recumbent position. The wound was again dressed with the iodine solution in four days' time, and was to my satisfaction a healthy one, the same procedure of bandaging being carried out. The limb was left in this position until the twelfth day, when the stitches were removed. On examination of the forearm it was then found that union had taken place between the approximated ends. The same procedure as before was adopted in fixing the limb.

On the eighteenth day I again dressed him, and gave instructions to come to me again in five days.

On the twenty-fifth day, as he had not put in an appearance, my native servants were sent to look for him, and later brought him to me. He had removed the splints, but had applied the bandages over the lint covering the wound, which was then quite healed.

I again saw him on the thirty-seventh day. The radius and ulna had then completely united, he could grip firmly with his right hand, and was able to extend, pronate, and supinate the injured forearm, but had a limited degree of flexion.

Three months later he came to me complaining of symptoms resembling sleeping sickness, which unfortunately proved to be true.

2. On a punitive expedition which I accompanied as medical officer into the hinterland of the Nile against some hostile tribes, I was called upon to treat over a hundred cases, comprising gunshot, spear, arrow wounds, and cuts, incurred on both sides. In almost every case I treated them with a 2 per cent. solution of tincture of iodine, and was surprised at the excellent results obtained. The various injuries healed in a remarkably short space of time, and I am of opinion that the beneficial results obtained from the use of this drug compare most favourably with any of the other antiseptics now in use, and,