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The Last Ten Years—Some Experiences and Reflections. [Abridged]

PRESIDENT'S ADDRESS

By E. COWPER TAMPLIN

POLIOMYELITIS AND TONSILLECTOMY

A MEMORANDUM by Medical Officers to the Ministry of Health in the *Brit. med. J.*, 1947 (ii), 141, advised postponement of tonsillectomy whenever possible during the prevalence of poliomyelitis. At the Cambridge B.M.A. meeting, according to the printed report, the same view was put forward by two or three speakers, but was questioned by laryngologists who were present.

It is time, therefore, to enquire on what grounds and on what evidence this " stoppage " is advised. I have endeavoured to do this and would like to record some of my investigations.

First a word on statistics. They are useful and necessary, but we should be as careful in drawing conclusions from them as we should be from an array of selected opinions. Both can be made to prove anything.

Here three examples were given (*see* references 1 and 2), and the speaker continued :

The last example (reference 2, p. 1227) shows that cases of otitis media had already fallen from 80 to 30 (more than 50 per cent.) *two years before* the reductions in tonsillectomies. Yet on that evidence we are told, only this year [3] that " Similar reductions in the cases of otitis media followed even more drastic reductions of tonsillectomies by Garrow of Hornsey ". Note the word " followed ".

These examples show to what conclusions statistical evidence alone may lead. It is surely obvious there are other factors which must be taken into consideration and we should only use such evidence in conjunction with practical knowledge and experience.

The Monthly Bulletin of the Ministry of Health for July 1948 contains an impressive article on the subject. I am grateful to the editor (Dr. J. Alison Glover) for having kindly sent me a copy.

It should be noted that in this article two of the references are not connected with poliomyelitis and of the remaining 15, no less than 14 are American. I

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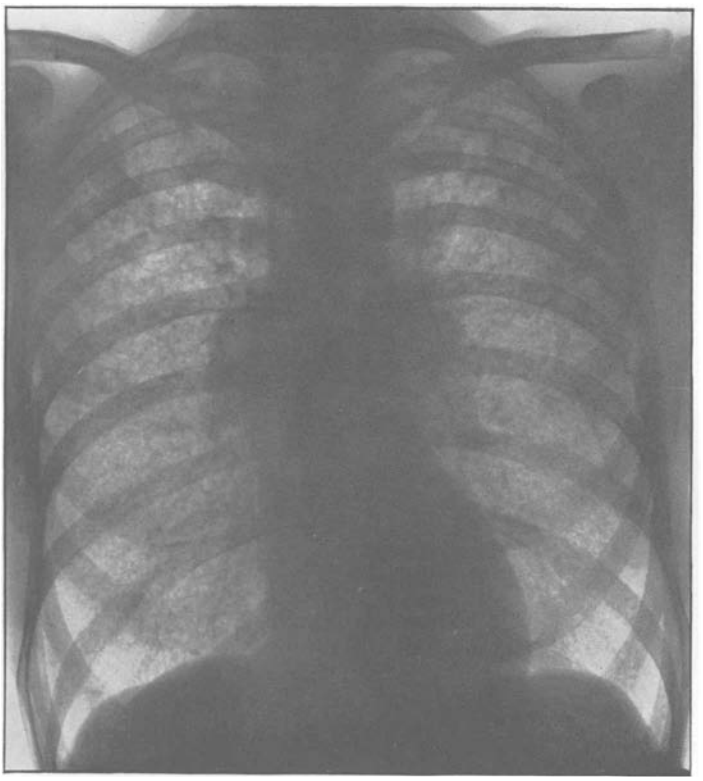


Fig. 1.

An interesting picture of miliary tuberculosis. No definite clinical signs or symptoms. A " snow-storm " with a multitude of very fine, small shadows in both lung-fields. Compare with Fig. 2.

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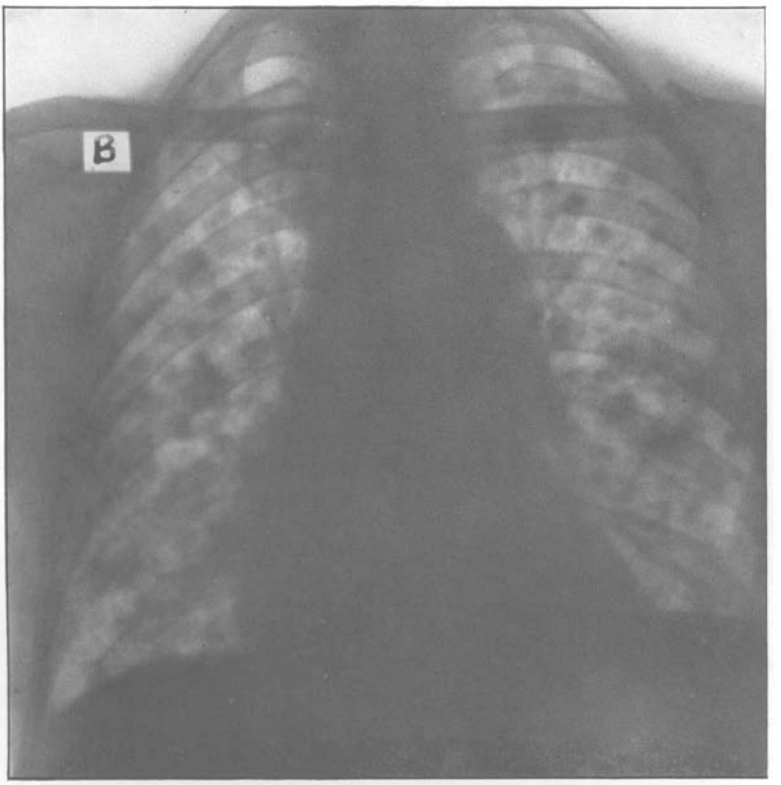


FIG. 2.

Widespread secondary carcinomatosis with very much larger shadows than those seen in Fig. 1. No clinical signs or symptoms.

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FIG. 3.

Many attempts were made to obtain radiological evidence, but this was the only successful picture, showing a very temporary stricture with a pear-shaped dilatation above, which passed off completely in a few moments.

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had already read most of them and I would draw your attention to six others, which, I suggest, give a different picture (*see* references 1, 4, 5, 6).

There can be little doubt that the majority of tonsillectomies are not elective; most of them are necessary surgical procedures, performed in the interests of preventive medicine; and I must agree with the conclusions of the more recent authors that the incidence of poliomyelitis in tonsillectomized individuals is no greater than in those individuals whose tonsils have not been removed.

In this country poliomyelitis cases following recent tonsillectomy were fewer than might have been expected from some American experiences and it has been suggested this was because we were alive to the danger, but surely so were the Americans for they had begun to consider it nearly forty years ago!

The questionnaire sent out to hospitals by the Ministry of Health in October 1947 did not include a question on tonsillar state. This was unfortunate, for poliomyelitis has been with us a long time and in Portsmouth, at least, the visitation of 1938 was in some respects more serious than that of 1947, yet we never stopped our ordinary lists, but adopted the arrangement I shall mention shortly.

What justification is there for general postponement? In my opinion there is no doubt whatever that if we unnecessarily postpone operating, great harm, needless suffering and serious ill-health will result to hundreds of children who are in sore need of our assistance. Meanwhile something on the lines of our procedure in Portsmouth and district might be adopted, as I do not know of any authoritative *British* evidence.

Portsmouth Experience

Our experience is small but not uninteresting. In 1947 well over 1,000 tonsillectomies were performed in the City alone. 82 cases of probable poliomyelitis were admitted to the Infectious Diseases Hospital, 31 of which proved to be definite. Four cases were fatal, all of which exhibited signs of bulbar involvement. None of these 82 cases had been tonsillectomized recently. I know this because the Medical Superintendent of the I.D.H. and his deputy on their own initiative had examined these cases as to recent tonsillectomy.

Close co-operation exists between them and ourselves, so that should occasion arise, joint consideration can be given at once to the question of postponement of operation.

X-ray Films

Films of 4 Cases were shown, 3 of which are illustrated

I.—Male, aged 61, complained of "something in his throat"; no cough and he appeared fit.

On examination the right tonsil was enlarged, irregular, ulcerated and the surrounding tissues were not invaded; no cervical glands.

I had no doubt it was an epithelioma and dissected out the tonsil with a diathermy needle. The pathological report was: "The specimen consists of an enucleated tonsil, measuring $3 \times 2 \times 1$ cm.

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The surface is ulcerated and on bisection there are areas of firm, opaque, white tissue. Section shows the lymphoid tissue to contain numerous typical tubercle follicles with some caseation. In sections stained by Ziehl-Neelsen's method acid-fast bacilli can be seen in considerable numbers.

The physicians were asked to see him and found nothing clinically but an X-ray of his chest produced the film shown—the best X-ray photograph of miliary tuberculosis I have seen. The tonsil bed was healed in twelve days, he was put on streptomycin, has gained 12 lb. in weight, but is not doing well (*see* Fig. 1).

II.—Male, aged 68, was referred to me because five or six times in the last month his throat " seemed to close up suddenly when eating ". It was only momentary and he finished his meal normally.

On examination, pharynx, larynx, post-cricoid region and pyriform fossae were all normal, but he *looked* ill and I therefore had him X-rayed with the result shown in Fig. 2.

He never had any cough, difficulty in swallowing or pain, but gradually became weaker and died seven weeks later.

X-ray report : " Obstruction in œsophagus at level of aortic arch, outline in keeping with malignancy. There is widespread secondary carcinomatosis in both lung fields " (*see* Fig. 2).

Both these cases had no chest symptoms or clinical findings and the very fine shadows of the miliary tuberculosis are in marked contrast to the very much larger ones of carcinomatosis.

III.—Stricture of œsophagus.

Female, aged 31. Married. Referred with a year's history of intermittent difficulty in swallowing and occasionally regurgitation. Screened and X-rayed with barium several times but nothing definite found.

Œsophagoscopy : normal, except for quite small slightly red areas at 24, 28 and 32 cm. She was therefore transferred to the medical wards where neurological and all other examinations were negative. X-rayed again and on the second occasion (Fig. 3) the picture was obtained. In a few minutes she said " It's gone " and another film taken in the Trendelenburg position showed all the barium in the stomach with no sign of returning to the œsophagus. With careful dieting and reassurance she was sent home and is still improving. It is interesting that her mother and aunt have somewhat similar symptoms : the mother has an œsophageal pouch, but the aunt refuses to be X-rayed.

Abscess-Tonsillectomy

Here I am going beyond the ten years for the sake of continuity and have included cases done in the Army in the last war.

I first became interested in this procedure about 1930 following some correspondence in one of our journals and an article by Canuyt [7] who incised the abscess and followed this by a tonsillectomy in some cases, but not as a routine procedure.

Thacker Neville [8], Linck [9], Heindl [10], and Swart [11] have all published papers on the subject and the last three consider " it should now be the operation *of choice* ", " *in no case was the procedure harmful or had given rise to any*

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complication " and " the dangers of operating upon acutely inflamed tissue had been greatly exaggerated, at least in this field ".

My own experience has been as follows :

I have now dealt with over 200 singles and 6 doubles without any complication arising. The patients themselves are very delighted with the relief from pain and discomfort and are extremely pleased they will not have to return for another operation at a later date. In these days when, in most areas, beds are precious, the reduced time in hospital is also a consideration. The majority of the patients are taking food with very little discomfort the next day and go home in a week or less.

Even the worst case, a double, where owing to the great œdema and swelling causing dyspnœa the house surgeon was advised by the doctor to have a tracheotomy set ready, the patient was discharged in ten days.

The extraordinary thing is that hæmorrhage is less than that occurring in ordinary tonsillectomy. I have never had to use a ligature or suture, but I do inject coagulen locally when required. In only two cases has it been necessary to deal with reactionary bleeding and then it has been on the *non*-quinsy side ! With an electric sucker, a good anæsthetist and an intratracheal tube there is no difficulty and the patients are practically " round " when they leave the table.

Notes on a few cases of interest, with specimens :

Chordoma

In the basilar part of the developing occipital bone the notochord approaches the lower or pharyngeal surface of the bone and part of it may lie between the basilar plate and the wall of the pharynx [12]. A chordoma is a tumour arising from the embryonic remains of the notochord and is still a comparatively rare condition.

The first case of spheno-occipital chordoma to be recorded in the British Isles was that of Burrow and Stewart [13].

Since then Gavin Livingstone [14], Gould [15], Carnegie Dickson, Worster-Drought and McMenemey [16] have reported cases and in 1943 I showed at this Section a man of 38, referred with a six months' history of " a completely blocked nose, loss of taste and smell and recent difficulty in swallowing ; hearing in both ears normal ".

There was a very large, firm, reddish mass in the nasopharynx pushing the soft palate forwards and downwards to the limit. A short course of deep X-rays caused no improvement.

Two months later I removed the growth through a transverse incision at its lower border. I had not decided whether to take a portion for biopsy or try for total removal, but as the latter seemed possible I went ahead. The mucosa stripped easily anteriorly and laterally, but posteriorly the mass was bound down very firmly.

After attempts to remove it whole I adopted a morcellement procedure with Luc's and Behnke's forceps and this was successful though postero-superiorly there was one area about 1 in. by ½ in. where bare, rough bone could be felt. The overlying tissues were replaced and a postnasal plug was inserted for

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twenty-four hours in case of hæmorrhage. Recovery was uneventful and he left hospital two weeks later.

Dr. J. D. Radcliffe, our pathologist reported: "This tumour consists of rather large cells which are grouped in small masses by strands of loose connective tissue. The tumour cells frequently show large vacuoles containing mucin and they are often surrounded by more or less mucin, acting like an intercellular substance. In a few places the cells appear as a syncytial mass. The tumour is a *chordoma*".

The patient gained 2 stones in weight and did light work but gradually it became obvious that intracranial invasion had begun and eighteen months after I had first seen him he was admitted to hospital in a dying condition. At post-mortem a large mass was removed from the base of the skull, arising from the spheno-occipital synchondrosis.

Papillomata of Larynx

A child aged 2½ years was brought to hospital with very great difficulty in breathing. The mother said it had begun four months previously and had gradually become worse.

On examination there was marked indrawing at the suprasternal notch and around the clavicles, in the intercostal spaces and at the epigastrium.

On direct laryngoscopy all that could be seen was an irregular raspberry-like mass practically filling the whole glottis. An immediate tracheotomy was done. For two or three days he developed a mild pneumonia which cleared with penicillin. He had several "attacks" in which respiration stopped and the pulse was imperceptible but coramine restored him. However he died in one of these attacks seven days after admission, apparently because the four month's strain was too much for the heart.

In *J. Laryng. and Otol.*, 1948, lxii, 621, in an article on this condition, Zalin suggests treatment by local application of œstrogen which shows some promise.

In my experience papilloma of the larynx occurred occasionally before the war, but this is the only case I have seen in the last ten years, with the exception of a tracheotomic fistula which remained from previous treatment of one and which I closed so that the lad could join the R.A.F.

Hæmangio-endothelioma of Trachea

This specimen was from an infant of 4 months who was moribund when admitted to hospital and died before anything could be done. It is the only specimen that survived the "blitz". I show it only because of its rarity.

Spasm of the Larynx in Infants and Children

Congenital laryngeal stridor.—In the last three years I have had 6 cases of infants with a crowing or grunting or fluttering sound on inspiration noticed at birth or soon after. My obstetric colleagues also see them, but as the infants are never blue, usually grow and gain weight normally, I do not see them unless to satisfy an anxious mother.

On direct laryngoscopy there has been no web, but the upper orifice of the

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larynx is curved in on inspiration and is blown out on expiration. The infolding of the orifice is from side to side with a curling inwards and perhaps backwards of the epiglottis due to a flabbiness of the upper laryngeal aperture thus preventing full and free ingress of air.

The Jacksons have termed this laryngomalacia and consider it is due to a deficiency disease.

Spasm of the larynx in children.—This condition may also be due to dietetic errors or deficiencies, but one of the main causes is excessive secretion and such cases should be examined by a laryngologist.

Adenoids greatly increase the secretion in the pharynx which leads to an increase in the frequency and amount of secretion passing into the larynx. They also compel mouth breathing with its attendant inspiration of unfiltered, unwarmed air with consequent laryngeal irritation.

Therefore if adenoids are present, they should be removed before the child is dealt with by the physician.

Laryngismus stridulus.—This is rare after 3 years of age, but is more common today than before the war. In each case there is sphincteric closure with infolding of the laryngeal margins with no abnormal secretion or signs of inflammation. This again is probably due to a deficiency disease and the anatomic factor is laryngomalacia.

These 3 conditions appear to be increasing. The cause may arise in the mother or there may be some defect in the infants and children themselves. It may be due to lack of fats, deficiencies in the natural vitamin content of the food of today or to the chemical adulteration of the flour.

The ophthalmic surgeons tell me they are quite definitely meeting with a much greater incidence of minor troubles, such as corneal ulcers, blepharitis and conjunctivitis, which are taking much longer to clear up than before the war.

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