FACIAL PALSY ACCOMPANYING ACUTE MASTOIDITIS

WITH COMMENTS ON CHEMOTHERAPY IN ACUTE SUPPURATIVE OTITIS MEDIA

BY

KENNETH R. OGILVIE, M.B., B.S.

Registrar, Royal National Throat, Nose and Ear Hospital, London

Pre-operative facial palsy occurs in about 2% of all cases of otitis media, acute and chronic, but is a much more common complication of chronic or acute-on-chronic otitis media than of acute otitis media *ab initio* (Kettel¹). Presumably, therefore, this complication of acute mastoiditis is comparatively rare. Apart from the four cases now presented, I have only once previously seen a similar case of facial palsy resulting from an acute mastoiditis, but have met with the condition three times following an exacerbation of chronic otitis media.

Reports of Four Cases

Case 1.—This patient was a girl aged 5½ years. On Sept. 12, 1945, she complained of headache, but had had no previous ear trouble. On Sept. 14 epistaxis occurred, and on the 15th there was slight left otorrhoea. Next day a pulsating left aural discharge, a tender mastoid process, a partial left orbicularis palsy, and complete paralysis of the lower left face were recorded. Cortical mastoidectomy on Sept. 16 revealed a grossly infected cellular mastoid containing much pus; the sigmoid sinus and dura were both exposed and found healthy. The wound was closed with dependent tube drainage. On Sept. 25 the facial palsy was resolving, and by Oct. 6 recovery was complete. The tympanic membrane and the hearing were then normal.

Case 2.—A boy aged 19 months, when admitted on Sept. 12, 1945, had had left otorrhoea for three days. No history of earache was at this time reported by the parent, whose intelligence, however, was below the average. The left tympanic membrane was thick and red, with anterior perforation. Otorrhoea was profuse, and there was complete left facial palsy (of three days' duration). Cortical mastoidectomy revealed an extensively diseased mastoid containing much muco-pus. On Oct. 17 left facial palsy was still present, but with slight furrowing of the left brow on crying. The tympanic membrane and the operation wound healed. A further follow-up was unsuccessful in spite of several requests to attend as an out-patient.

Case 3.—A boy aged 9 years, admitted Oct. 6, 1945, had had left otorrhoea for two weeks, and left complete facial palsy for one week. There was no history of previous ear trouble. Left cortical mastoidectomy revealed a very necrotic mastoid. The wound was closed with tube drainage, but was reopened on Oct. 27 because of the onset of a low but swinging temperature due to some pocketing of pus. On Dec. 21 the palsy was beginning to recover and the tympanic membrane and the operation wound had healed. Hearing normal. By Jan. 11, 1946, recovery from the facial palsy was complete.

Case 4.—Mr. A., aged 36, attended hospital on Nov. 5, 1945, for left acute suppurative otitis media with otorrhoea. He was treated with a sulphonamide—2 g. daily for five days. The otorrhoea ceased, but some deafness persisted. There had been no previous ear trouble. On Dec. 24 left otalgia followed coryza, and next day there was left otorrhoea. On the 26th the "left side of the face went stiff." Examination on Dec. 28 revealed muco-pus in the left meatus. Deafness was marked, but he had no mastoid tenderness. The temperature was normal. There was complete left facial palsy. Pus was present in both sides of the nose. Cortical mastoidectomy on Dec. 29 revealed a grossly infected cellular mastoid (thick cortical bone) with a deep abscess cavity in the tip containing about a teaspoonful of thick pus under pressure. In the antral region the lining membrane was markedly swollen. A bipp pack was inserted and the upper part of the wound sutured. On Jan. 1, 1946, progress was satisfactory, but the facial palsy was still complete. By Jan. 5 the palsy was beginning to recover in the brow and orbicularis region, and on the 8th recovery was almost complete. On Jan. 22 the patient had quite recovered from the facial palsy, the tympanic membrane was normal, the operation wound had healed, and hearing was normal.

Comment

Faradism was not employed in any of these cases, chiefly because its repetition ruins the morale of children, however painstakingly given, and its value seems doubtful in this type of case. Case 3 showed perfect recovery after nearly eleven weeks of complete paralysis. Splints of any kind were dispensed with for reasons similar to those given above.

Case 4 illustrates one of the pitfalls of sulphonamide therapy in otitis media; there are many others, which are easily

explained by the usual pathological and anatomical changes resulting from the bacteriostatic action of the sulphonamide, which, while localizing the infection of a sensitive and accessible organism, in some cases leaves a focus of living though temporarily attenuated bacteria, while in others a focus of devitalized tissue, incapable of offering any effective barrier to a new infection, remains.

That the latter condition obtained in Case 4 is obvious. His course of a sulphonamide actually or apparently cured the otitis media by Nov. 10; but another attack on Dec. 24 led to an advanced mastoid infection, with a large tip abscess and a facial palsy, within five days, as found at operation on Dec. 29. This infection travelled rapidly by preformed pathways—i.e., those laid down five or six weeks previously.

The position of sulphonamide therapy in otitis media is difficult to assess,² and, as in other forms of treatment, the decision to use or not to use it in any individual case rests as a rule with the general practitioner. He will have to make this decision himself, and, if he decides to administer a sulphonamide drug, then it is as well to bear in mind the possibility that a subsequent relapse or reinfection may with considerable rapidity lead to dangerous complications—perhaps more serious than a facial palsy.

In these cases the infection may be compared with that of a mechanized army advancing over suitable country with supply dumps in abundance already laid down and perhaps a few useful hardened veterans (the sulphonamide-fast bacteria), who have survived the previous rout and have since been lying low, to assist it.

Probably it will prove wiser to reserve chemotherapy for cases which show a tendency to spread outside the mastoid process or which are part of a general septicaemia from some other focus; such cases are best treated in hospital, where all necessary investigations can be made and penicillin be conveniently given, with appropriate surgical intervention if necessary.

Summary

Four cases of spontaneous facial palsy occurring as a result of acute mastoiditis are described; three showed complete recovery at varying intervals after the Schwartze operation; the fourth could not be followed up.

The position of sulphonamide treatment in cases of acute suppurative otitis media and acute mastoiditis is discussed.

I am much indebted to Mr. J. W. MacLaggan, Mr. F. Watkyn-Thomas, and Mr. A. Ryland—under whose care Cases 1 and 3, 2 and 4, respectively, were admitted—for giving me the opportunity of operating upon and subsequently looking after these interesting cases.

REFERENCES

- ¹ Kettel, Karsten (1943). *Arch. Otolaryng.*, **37**, 303. (Quoted in *British Medical Journal*, 1943, **2**, 752.)
- ² J. Laryng., 1945, **60**, 298. (*Proc. roy. Soc. Med.*, Sect. Otol., March, 1945.)

TREATMENT OF PEDICULOSIS CAPITIS WITH D.D.T. EMULSION

BY

A. D. FRAZER, M.D., D.P.H.

Investigators of its toxicity agree generally that D.D.T. is practically safe when applied externally as a dried powder or in dilute solution (see *Journal*, 1945, **2**, 260). Repeated contact with concentrated solutions is dangerous, but early warning of intoxication is to be expected in anorexia. Scobbie (1945) found that in the treatment of pediculosis capitis the nearest approach to an ideal was D.D.T. emulsion, which killed the lice and persisted in the hair long enough to kill all the larvae. She did not find any toxic reaction or irritation of the scalp or skin after its use. In spite of a fairly large number of publications agreeing generally with the above findings, there still seems to be a fear of possible danger in the use of D.D.T. for pediculosis, and in consequence it is not widely favoured. The experiences of a Nottingham clinic may be of interest, therefore, as during the last eighteen months over 400 patients have been treated without ill effect. At first a 4% solution of D.D.T. in liquid paraffin was used, but since March, 1945, the emulsion found so successful by Scobbie has