

BELT (E.O.)

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OTITIS MEDIA-ABSCESS OF NECK-
DEATH.

By E. OLIVER BELT, M.D.,

WASHINGTON, D. C.

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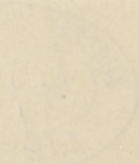
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STATE MEDIA ASSOCIATION OF TEXAS
GRAVE

IN A PUBLIC HEARING
HEARD

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MEMPHIS, TENN.
MAY 1968



*SUPPURATION OF THE MIDDLE EAR,
COMPLICATED WITH ABSCESS OF
THE NECK, WITH REPORT OF A CASE.

Written for the Ophthalmic Record by

E. OLIVER BELT, M. D.,

WASHINGTON, D. C.

Abscess of the neck as a complication of otitis media is of such infrequent occurrence, and of such grave import in making a prognosis, that I feel I need make no apology for reporting the following case.

On Feb. 17, I was called in consultation with Dr. W. Sinclair Bowen, to see Mr. S, a lawyer, aged 53 years who presented the following history. With the exception of an attack of meningitis some years back which left him blind in the left eye, his general health had been very good up to a few years ago when he commenced to drink excessively. He suddenly gave up drinking about three months ago and a few weeks later was taken ill with grippe. The right ear soon became involved, and he suffered intensely until relieved by bursting of the drum. Dr. Bowen was then called in and found a discharge from the ear which continued in spite of treatment, after the patient had sufficiently recovered from the grippe to resume his usual work at his office. After several weeks he became restless at night, was not able to sleep, and complained of pain in the right ear and over that side of the head. I first saw the patient on Feb. 17th, which was about six weeks after the beginning of the otorrhœa. I found the discharge still profuse, the ear and

*Read before the Medical Society of the District of Columbia, March 16th. 1892.

surrounding tissues somewhat painful and swollen, and hearing with my watch $\frac{0}{40}$. The external and middle ear were full of pus, which was evacuated with syringe and hot water and by inflation with the Politzer ear bag. The ear was ordered to be syringed with hot water every two hours and a sol. of Pyoktanin (1-1000) instilled after each cleansing. The mastoid region was painted with Iodine. Inflation by the Politzer method was practised once or twice a day, after which fluid injected into the ear would pass into the throat, showing that there was good drainage through the Eustachean tube. For the next few days he suffered much less pain, and rested well. Leeches were not found necessary. The slight swelling about the ear subsided, but the discharge continued very profuse. Zinc. sulph. gr. ij to $\overline{5j}$ of a saturated solution of boracic acid was ordered to be used after each cleansing of the ear, the pyoktanin then being used only once a day. Feb. 22nd. there was some swelling along the sterno-cleido-mastoid muscle about two inches below the auricle. Appetite poor, ordered phospho-muriate of quinine comp. The next few days the swelling and discharge were less. 25th, quinine grs. v. twice a day was ordered. 26 and 27th. much less discharge, weather was fine and he had been going to his office a few hours each day, stopping to see me going and returning. 28th, a cold wintry day I insisted upon his remaining in doors which he did henceforth. Temp. and pulse normal, but swelling below the auricle was a little greater and more painful. Poultices were ordered to be applied constantly. The mastoid was not red, swollen or tender, the discharge was less but was very thick and tenacious but not offensive. There were no granulations about the meatus or drum-head. Condition remained about the same for the next several days, but he would take very little nourishment. He was usually constipated, for this calomel and magnesia were given. On March 3rd. he had considerable thirst, temp. 97° pulse 100, swelling of the neck muscles greater. March 4th. Dr. James Kerr was called in consultation. Patient was decidedly weaker than he had been, somewhat listless, and indifferent to what was being done, pulse 100, temp. 97° a. m., 98° p. m. Deep fluctuation could be made out under the sterno-cleido-mastoid muscle for the first time.

We decided that the pus should be evacuated, and at 12:30 the next day we met for that purpose. At first the patient was averse to having the operation performed but finally consented. He was dull and much weaker than usual. After much persuasion he sat up for me to cleanse the ear, then walked into the adjoining room to be operated upon. He was opposed to taking chloroform or ether, so a few injections of cocaine were made over the mastoid process and over the abscess. Under strict antisepsis Dr. Kerr operated, assisted by Dr. Bowen and myself. Carefully cutting through the sterno-cleido-mastoid muscle and deep fascia, quite a large quantity of pus was evacuated. While cutting through the muscle the ear filled with pus. As these abscesses are nearly always the result of inflammation of the mastoid cells or periosteum, the mastoid was cut down upon. There was no evidence of peri-ostitis. The cells were then perforated with a drill but no pus was found. A bichloride solution 1-2000 was injected but it did not pass through into the tympanum. Pus seemed to be entering the abscess cavity directly from under the auricle. This cavity was syringed with the bichloride solution and both wounds filled with iodoform gauze. The patient stood the operation very well, had a good pulse but his face and extremities were a little cold. There was less sensibility to cutting than was expected from the cocaine alone. At five o'clock Dr. Bowen and I saw him again. He had been sleeping since the operation and we found him in a semi conscious state. An enema of warm water was given and he was induced to take some beef tea. Very little pus was found in the ear. Dr. Bowen called again at 11 o'clock, condition about the same. There was no pus in the ear. At 12:30 just twelve hours after the operation the patient quietly died, apparently of exhaustion. No autopsy was held.

Cases of suppuration of the middle ear which terminate fatally are usually complicated with mastoid disease. But this is not always so, and death results from meningitis, cerebral abscess, hemorrhage, thrombosis, septicemia or exhaustion. In this case there was no evidence of meningitis, hemorrhage, thrombosis or septicemia. There was no headache except occasionally over the right side of the head, and there

was absence of delirium, vertigo, nausea, vomiting, chills, sweats and paralysis. The pupil was normal and vision was not impaired. There was no fever, and during the last few days of his illness his pulse ranged from 100 to 110. The slight stupidity and sub-normal temperature for two or three days suggested the presence of cerebral abscess, but this complication is usually accompanied with a slow pulse, and the sub-normal temperature in such cases is most marked in the evening,* which was not so in this case; and in the absence of all other symptoms of brain abscess I am inclined to think that the fatal ending was due entirely to exhaustion. In looking over the literature of the subject I find very few cases of abscess of the neck secondary to ear trouble reported. Many text books do not refer to the subject more than to say that it is a grave complication. Pomeroy says that "Bezold, in the *Deutsche Med. Wochenschrift*, July 9th. 1881, describes a rather exceptional manner in which mastoid cell disease involves the muscles of the neck. He has found that in some cases the mastoid bone at the digastric fossa, that is on the inner surface of the process, contains numerous cells which approach so near the surface of the bone that it is readily cut into with a knife, or even a probe may break through. At this unprotected point the pus escapes, and burrows deeply among the muscles of the neck. Such cases usually terminate fatally, either by exhaustion, or by involvement of the vertebra or base of the cranium with symptoms of paralysis, by œdema glottidis, or by burrowing of pus in the thoracic cavity. Deep incision and drainage caused a few of these cases to recover." Further on in speaking of fatal complications arising from suppurative otitis, Pomeroy says: "Purulent inflammation of the mastoid cells, when the mastoid ruptures at the inferior portion, at or near the digastric fossa, or in the outer part of the osseous meatus, causing the pus to burrow beneath the muscles of the neck may result fatally from the exhaustion incident to the purulent process."

Dr. J. Orne Green, in speaking of such cases says† "In case of extension into the digastric fossa, the indications are to

* E. A. Baker. *The Lancet* 1887 vol. j p. 1175

† Reference Hand book of the Med. Science, Vol. ii p. 619.

evacuate the pus as soon after the carious perforation of the bone as possible." The accident he says is a rare one, his experience being limited to three cases, all of which showed the characteristic cellulitis of the neck described by Bezold. Two of the cases occurred years ago, and after developing deep abscesses in the neck died, one from pyemia, and one from exhaustion, the third after an incision into the mastoid made a tedious recovery.

Dr. Roosa in his treatise on diseases of the ear refers to two somewhat similar cases which recovered.

In one case aged 23, the neck was swollen down to the clavicle, the mastoid region was swollen but not red or tender. The mastoid cells were opened with a drill, pus was found. Three weeks later an incision was made through the sterno-cleido-mastoid muscle and a large quantity of pus was evacuated. From this time the patient began to improve and finally recovered. The second patient was 45 years of age. He had acute otitis media with great pain, the drum head was incised, suppuration followed. Later on there was slight tenderness and swelling of the mastoid. A month after the beginning of the trouble the muscles of the neck were pronounced to be in a state of inflammation. For the next ten days the temperature ranged from $98\frac{1}{4}$ to $99\frac{1}{2}$, with the pulse from 90 to 100. The swelling in the course of the sterno-cleido-mastoid muscle, and about the neck increased and the symptoms pointed to abscess. Consultations were held with six or eight of the leading aurists and surgeons of New York. They decided that operative interference was not indicated and that supporting treatment was demanded. Whiskey and milk, iron and quinine were given, and poultices were constantly applied to the neck, after much suffering the swelling of the neck gradually subsided and the patient recovered.

From a careful study of these cases I am inclined to think that we may be too conservative in regard to operating. Pus may form under the deep fascia of the neck some time before we have any positive external indication of it, and though it is possible for the suppuration to cease and the pus to be absorbed without surgical interference, it is usually after a great deal of

suffering and there is risk of septicemia ; and by the time we have positive evidence of the presence of pus the patient may be too exhausted to stand the operation. So in these cases when the cervical swelling does not promptly yield to our usual treatment and there is much suffering or exhaustion, cutting down upon the mastoid, and into the cells if necessary and through the muscles of the neck would seem to be indicated. Under the careful antiseptic surgery of the present day there is but little risk in the operations, and though pus should not be found the depletion of the parts would usually be beneficial.

Too much attention cannot be given to keeping up the strength of the patient by good food, tonics and stimulants.