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**SUPPURATIVE MEDIA OTITIS WITH MASTOID SYMPTOMS
AND INFECTIOUS PSEUDO-RHEUMATISM OF NASO-
PHARYNGEAL ORIGIN.**

(*Contribution to the "Paratuberculoses" of Poucet and Leriche.*)

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(Translated by K. DICKSON.)

THE following case is worthy of interest from the diagnostic and prognostic points of view.

In January, 1906, we were consulted by a young girl, aged fourteen, who came from Siberia with acute suppurative otitis of the right middle ear, contracted in November, a few days before her departure from Tomski. Whilst passing through Moscow, as the aural discharge had ceased in a premature manner, myringotomy was considered necessary, and the patient went away immediately to Nice to recover. Shortly before this attack of otitis the patient had suffered from articular rheumatism, without local redness, but with swelling, chiefly of the knee.

Pale, anæmic, very much overgrown, this young girl had sprung from parents who were very healthy, strongly constituted and extremely arthritic. Although delicate, her health had been satisfactory up to that time, but for the last few years she had blown from her nose an abundance of mucus and foetid crusts. The patient, who had ozæna, and whose nasal mucous membrane

was visibly atrophied, constantly had redness of the naso-pharyngeal mucous membrane, inflamed by the muco-purulent secretions which, during the night, ran down from the nose into the throat; the tongue was generally coated—an evidence of the gastric infection which the muco-pus (unconsciously and continually swallowed) caused in the primary digestive tract.

In the month of January, when the patient came to see us, she showed no sign of rheumatism, and we only thought of treatment of the nasal fossæ, the evident cause of the otitis, when on January 24 she suddenly developed a febrile condition, the temperature averaging 38° C. (100·4° F.). At the same time there was a diminution in the aural discharge, and pain round the mastoid with tenderness and swelling over a circular space of about 5 cm. in diameter. Further, there developed epiphysial pain of the right elbow and slight cough.

This pathological condition was accentuated the next day, there being a temperature of 40° C. (104° F.), a pulse which oscillated between 125 and 140, some nausea, pain round the mastoid, diminution of aural discharge, and diminution of the contractility of the pupils. Some clots of blood came from the nasal fossæ at the same time as the naso-pharyngeal purulent mucus; to these local conditions there was then in addition distinct tenderness in the right iliac fossa.

The question of a mastoid operation was raised on account of the existing symptoms, as it was doubtful whether the painful swelling round the mastoid were not a symptom of a local osteomyelitis which corroborated the other local or general signs.

In spite of the fear of rapid necrosis of the mastoid bone, which is always to be dreaded in the presence of symptoms as serious as those shown by the patient, we decided to wait until the next day, having resolved not to temporise any further if there were not real relief.

During the delay thus accorded an almost sudden and very remarkable amelioration took place to the extent that the next morning the tenderness over the mastoid was partly absent, the swelling less, and the fever had ceased. There was still a little inequality of the pupils and slight headache; the movements of the head in every direction were normal; there were no abnormal reflexes or pathological sensitiveness, in fact, no sign of meningeal stimulation. There was nothing in the respiratory passages except the pathological condition of the naso-pharynx. A day later the tympanum, which was less swollen, became more of an actual

pinkish colour, whilst the mastoid region became less and less tender and the general condition more satisfactory, except for some abnormal tenderness at the insertions of the abdominal muscles.

On the 27th, that is to say three days after the alarming state for which the necessity for operation had been feared, the condition was fairly good, and whilst the mastoid region seemed more and more free the tympanum resumed its normal aspect, without, however, the hearing being completely restored.

From this time the ear remained normal, in spite of the serious naso-pharyngeal condition, and we had before us the evolution of an infectious pseudo-rheumatism with intermittent but frequent febrile attacks, showing itself sometimes in the costal cartilages, sometimes in the spinal processes of the vertebræ, sometimes in the epiphyses of the long bones, sometimes in the joints of the fingers and the wrists, and in the external lateral region of the knee. It was usually a single joint which was involved, seldom many at a time. The region would be red, stiff, hot, painful, and extremely tender, this condition being transitory. Finally, a systolic sound at the apex directed towards the armpit was noted.

This young girl had been ill in this way for two or three months, and at the moment of her departure from Nice she did not seem to be quite cured, whilst her naso-pharynx resisted constant disinfection.

Analysis indicated the absence of Koch's bacillus, but some streptococci.

The case of this patient, whose history we have related under the above title, is an essentially interesting and curious one.

In fact, it concerns a patient who, from undoubted naso-pharyngeal origin, was affected with suppurative otitis with paramastoid phenomena resembling osteo-periostitis, whilst during the weeks which followed she had some painful arthritic cutaneous and osseous manifestations, such as infectious ambulatory pseudo-rheumatism is alone capable of producing.

What interpretation can be given of these para-mastoid manifestations, occurring along with the suppurative median otitis? Were they signs of mastoiditis occasioned by the purulent catarrh of the antrum or simply a sub-periosteal abscess very probably connected by the lymphatics with the cavities of the middle ear? Careful examination indicated that that part of the mastoid region which was painful on pressure was limited to the base of the mastoid to the extent of about 2 cm. in diameter with false fluctuations and slight redness.

Besides, it was seen that this pathological state appeared suddenly and disappeared suddenly. And all this took place in such a way that when the other phenomena of pseudo-rheumatism appeared we were able to establish the relations between them and the pseudo-rheumatic manifestations. These relations were so evident that they enabled us to class this para-mastoid inflammation as definitely independent of the suppurative median otitis and among the rheumatic affections of the subcutaneous cellular tissue, already described by Troisier and Brocq,¹ by Chuffart,² Meynet, Brissaud, and again, but earlier, by Davaine³ under the name of "rheumatismal œdema" and "ephemeral rheumatismal nodosities."

The case of this patient is all the more interesting as we pass from the domain of oto-rhinology into that of general pathology and thorough pathogenesis.

The naso-pharynx was the first part to be infected, as indicated clinically and by the streptococci found in the patient's naso-pharyngeal mucus. From there the infectious organism produced such rheumatic developments as take place in the course of general and infectious diseases (scarlatina, dysentery, blenorragia), or as are found associated with the different stages of pregnancy and the puerperium. Also, on the very complex diathetic soil of the young patient, the microbe was able to exercise its virulent action with ease, and this with all the more intensity, as although the offspring of healthy but extremely arthritic parents, the patient was delicate and frail. Of decidedly arthritic origin by her parents, the young patient had, in fact, the appearance of being very anæmic, and showed every suspicion of being tuberculous, although bacteriological examination indicated the absence of the Koch bacillus. What, then, did these ambulatory rheumatic or pseudo-rheumatic symptoms signify? The new ideas of Poucet and Leriche (of Lyons),⁴ who used to claim that the arthritic or supposed arthritic patients were often only tuberculous subjects, throw fresh light on the opinion formed in regard to this consideration, and furnish, in the conception of this word "paratuberculosis," proposed by Poucet and admitted by Fournier, the title to be supplied to the pathological condition of our patient. The disease of the young girl had, in fact, evolved in the manner indicated in many works

¹ Troisier and Brocq, "Transient Subcutaneous Nodosities and Rheumatism," *Revue de Médecine*, 1881 and 1888.

² Chuffart, "Aggrégation Thesis," Paris, 1886.

³ Davaine, "Paris Thesis," 1879.

⁴ "Inflammatory and Arthritic Tuberculosis," *Académie de Médecine*, January 2, 1907 (Poucet and Leriche).

of this kind, and the symptomatology of this condition (painful circumscribed or diffuse œdema, or purpura) with signs analogous to those of certain skin diseases formerly looked upon as arthritic, seemed to be dependent on a tuberculous, purely inflammatory process, such as had in a word been defined by Poucet in his "Tuberculous Abarticular Rheumatism." A fact which would further be in favour of this conception of "paratuberculosis" is that the internal organs remained normally sound; the external lesions, most often limited to the skin, were inflammatory abarticular lesions, and they may be constantly summed up as febrile inflammatory œdemas, among which, in spite of their disquieting appearance, was the "para-mastoid inflammation" which had given the patient's doctors such great anxiety, inflammation analogous to that of the rheumatic œdemas more or less rapidly transient, to which Fereol,¹ Davaine,² and more recently Troisier,³ Brissaud,⁴ Chuffart,⁵ etc., have given so much study. Finally, did not the chronic naso-pharyngeal lesions, which, once wakened up, were apparently or undoubtedly scrofulous in our patient, represent a form of those attenuated tubercloses which have often been taken for arthritic conditions, and which appear undeniable to those who know that the children of arthritic subjects are very much pre-disposed during their early years to the same inflammatory and catarrhal manifestations in the ligaments and mucous membrane as the scrofulous children of scrofulous parents? (Legendre).⁶

From all these considerations the following conclusion seems to follow. The history of this arthritic woman is that of more or less latent tuberculosis. It only remains to ask oneself if the pseudo-rheumatic lesions which were produced are the expression of the virulent tuberculosis, in the same way as the ephemeral subcutaneous rheumatismal nodosities have appeared to Brissaud, as the result of his analysis of numerous observations, to be the lesion prognostic of very serious rheumatism. According to Poucet, who has tried to solve this prognostic question, these arthritic lesions, so-called, would simply be the expression of the benign local tuberculosis found in tuberculous children and not tuberculous

¹ Fereol, 1879, Communication to the Congress for the Advancement of Science.

² Davaine, "On Rheumatoid Œdema and Transient Rheumatoid Nodosities," Paris, 1879.

³ Troisier, *Revue de Médecine*, 1881.

⁴ Brissaud, 1890, "Rheumatoid Bubo and its Prognostic Value."

⁵ Chuffart, "Aggrégation Thesis," 1886.

⁶ Legendre, *Traité de Médecine*, p. 313.

adults; the non-specific tuberculosis only causes an ordinary inflammatory reaction in the tissues, but is capable of being the "initial disease"; at first hidden, it only expresses itself at the peripheries by specific lesions of ordinary appearance, in the first instance; throwing off the mask more or less suddenly, it finally takes the classical appearance of granular and excavating lesions.

In short, it is important to remember that rheumatism can show itself locally with all the alarming aspects of a true mastoiditis, with such a symptomatology that it may lead to too hasty intervention.

Everything being considered, there are only present in the occurrence the subcutaneous rheumatismal œdemas of the mastoid region, transitory œdemas occasionally parallel to deep-seated auricular troubles, the analysis of which would avoid useless mastoid operation. These local and subcutaneous affections are liable to occur in these transitional arthritic subjects who, having sprung from decidedly and thoroughly arthritic parents, have exhausted their power of resistance and become progressively the types of a particular constitution. These types are—according to Poucet's expression—"paratuberculous" species of the degenerated arthritics, yet refractory to the severe internal tuberculoses; they are very favourable, on the contrary, to local tuberculoses in the skin, joints or elsewhere, spoken of as "*petites tuberculoses*," with which they slowly exhaust themselves.

THE MODERN TREATMENT OF SYPHILIS, ESPECIALLY IN REGARD TO THE UPPER RESPIRATORY PASSAGES.¹

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WITHIN the last few years considerable progress has been made in the diagnosis of syphilis. The microbe of syphilis, the *Spirochaeta pallida*, has been found, and we now know from the investigations of Wassermann, Bruck, and Neisser that the serum of a syphilitic contains bodies which are only to be found in people infected with syphilis. On the other hand we have not progressed very far as regards the means of fighting against this disease. Mercury and iodide are still the most important, if not the only reliable, remedies. The experiments in serum-therapy have un-

¹ Introduction to a Discussion in the Laryngological Section of the Royal Society of Medicine, on January 8, 1909.