XXIX.

PRIMARY JUGULAR THROMBOSIS DUE TO TONSIL INFECTION.*

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On December 8th a married woman, thirty-five years of age, was admitted to the Beth Israel Hospital. When five years of age she had had typhoid fever.

She had received treatment for follicular tonsillitis for ten days before her admission to the hospital. Five days previous she had had two or three chills, followed by fever and by profuse perspiration, accompanied with vomiting. A tender swelling was noticed on the left side of her neck, and she was referred to the hospital. Upon admission she had a temperature of 104°. She had a severe chill which was followed by a rise of temperature to 107.2°. The patient became delirious. The blood culture taken on the day of admission and again on the following day proved to be negative. Her blood count was 12,600, polynuclears eighty-four per cent. An examination made by Dr. Kopetsky of the ears, throat and accessory sinuses was negative.

On the evening of December 8th the patient presented an induration extending along the anterior border of the sternocleidomastoid on the left side. The patient appeared to be very ill and septic.

I confirmed the diagnosis made by Dr. Schneider, the house physician, of a probable septic thrombophlebitis; the chills, the hyperpyrexia and delirium indicating immediate operation. The pharynx was markedly congested, otherwise presented nothing abnormal.

The internal jugular vein was exposed by the usual incision

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along the anterior border of the sternocleidomastoid muscle. It was found surrounded by considerable infiltration of the tissues. The vein was exposed throughout its entire length and ligated near the clavicle. Thrombosis was situated at and included part of the facial tributary. The vein was resected from the clavicle below with a portion of the facial tributary to the jugular foramen. The greater portion of the wound was sutured and a drain was inserted in either end. The temperature gradually fell and on the fifth day was normal. The patient was out of bed on the fourteenth day.

During the operation the question arose as to the advisability of exposing the sinus, because I did not get blood readily with the aspirating needle introduced into the upper part of the jugular. I maintained that the danger of dissemination of infectious material throughout the body had been eliminated with the ligation of the jugular vein below the apparent thrombosis before the resection of the vein was undertaken. The exposure of the sinus was, therefore, not made, as the chiseling necessary for its exposure would have diminished the chances of the ultimate recovery of the patient.

Up to the present time there has been no indication for any further operative procedure.

The interesting features of this case are the direct infection of the jugular by the lymphatic route from the tonsils and the pharynx instead of the usual primary involvement of the sinus, and a secondary extension to the jugular complicating mastoiditis.

In recent literature, Long's case of sore throat with streptococcic invasion of the internal jugular vein and subsequent thrombi most nearly approaches this one.

Barnes, in a compilation of reports of systemic infections secondary to follicular tonsillitis involving the pharyngeal wall, mentions no direct infection of jugular vein as a complication.

We may conclude that the probable bacterial agent was streptococcus, since it is the most frequent factor in acute infectious processes in the mouth and throat (Braun) as well as in thrombosis.

It is interesting to quote here the explanation given by Libman and Celler of the negative blood cultures they ob-

tained in a number of cases when sinus thrombosis of infectious origin was present: "We are inclined to believe that there may be early no bacteremia, that the bacteria may then be found perhaps in increasing number, and that it is possible for the bacteria to decrease in number and even to disappear before there has been any operative interference. It is also possible that in certain cases there is below the infected clot an obturating, noninfected clot which prevents the bacteria from entering the circulation. We can also imagine the possibility of there being an infected clot which completely closes the vessel. Another possible explanation is that in the course of the infection the blood may acquire a higher bactericidal power."

By analogy the same arguments might be applied to the negative blood cultures in our case of jugular thrombosis we have just reported.

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