those steps which will insure that each child, as far as possible, is in condition to take advantage of the education that is provided for it so liberally and generously by this city. It is economy that the child should progress regularly in his school life, rather than remain behind year after year, blocking the lower grades of the school.

There can be no choice between health and education. Only that education is effective for use in life which is founded upon and which secures good health.

Clinical Department.

ACUTE INFLAMMATION OF TENDON SHEATHS SEQUENTIAL TO ACUTE TONSILLITIS.

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TONSILLITIS is known to immediately precede rheumatic fever frequently; indeed, some clinicians, Osler states, have gone so far as to say there is always a primary infective trouble in the lacunae of the tonsils, to which the rheumatic fever is secondary, the latter arising from absorption of microbes or their products.¹

Recent writers, among them John L. Morse, of Boston, have reported cases of acute nephritis sequential to acute tonsillitis. It may be that the tonsils are a port of entry for many diseases, such as rheumatism, influenza, acute nephritis and others less known. The following cases of acute inflammation of tendon sheaths were observed by me within a year, and are reported as of possible interest to the clinician interested in the sequences of acute tonsillitis. Acute tonsillitis is certainly a disease that merits careful attention and efficient treatment at the hands of the practitioner. The laity, in general, look upon tonsillitis as a simple trouble, not meriting a physician's care, unless the local symptoms are severe. This view is based on a lack of medical knowledge, and should be corrected. An analogous case of harmful ignorance on the part of the laity, that presents itself to mind, is their view-point of gonorrhea. Most patients with this disease are blissfully ignorant of its dangerous nature. We should teach them its possibilities — blindness, crippled joints, heart disease, sterility, peritonitis and even death. If this knowledge were general, surely it would be better for the laity — there would be less of the disease.

Report of cases of acute teno-synovitis sequential to acute tonsillitis:

CASE I. G. R., aged twenty-eight years, sent for me to see him because of a foot trouble. No history of trauma. A week before he had suffered from acute tonsillitis, recovering from the sore throat without medical advice. He was in bed, had moderate fever, and complained of his left foot being sore in region of the ankle joint. The ankle was painful when motion was attempted, and there was marked swelling and tenderness locally over the common sheath of the peroneal tendons. The sheath was evidently inflamed and had fluid in it — it standing out from the surround-

ing normal tissues as if anatomically injected. After a week of treatment, salicylates and local elastic pressure, the teno-synovitis disappeared.

CASE II. J. J. D., aged thirty-five years. Had acute tonsillitis of a week's duration, with only home treatment. A few days after subsidence of the throat trouble, he had an attack of acute trouble in both feet, in the lower Achillian regions. This lasted a little over a week. The tenderness was confined to the lower third of each tendon of Achilles, and the pain occurred when these tendons were put in motion. I saw him towards the close of the attack — advised painting over the affected parts with tincture of iodine (Churchill's formula) and absolute rest till soreness disappeared. Complete recovery after three days of treatment.

Medical Progress.

PROGRESS IN PHYSIOLOGICAL CHEMISTRY.

BY J. BERGEN OGDEN, M.D., NEW YORK.

DIGESTION.

Gastric Secretion. — An extensive series of experiments by Bernt Lormquist¹ was conducted on the dog with the following operations: (1) Pawlow's small stomach; (2) a duodenal fistula; (3) a resection of the pylorus. An anastomosis between the large stomach and the duodenal fistula was obtained by means of rubber and glass tubes; this was temporary and could be removed when desired. The results obtained from experiments on this animal show that secretion in the stomach is produced by psychic and certain chemical stimuli. The latter may act on the mucosa of the stomach or on the intestine. Fats inhibit gastric secretion. The inhibition does not arise from the stomach but from the intestine. After a gastro-enterostomy, liquid substances containing much fat inhibit the gastric secretion more easily than in a normal animal. No difference is observed with other foods. In a stomach cut off from the intestine, special substances have specific actions. Water, alcohol and the ultimate products of the digestion of proteins and meat extracts provoke copious secretion. Hydrochloric acid 0.1–0.5% and natural gastric juice do not promote the flow. Lactic and butyric acids 0.5% give a marked secretion. With sodium chloride and sodium carbonate the effect is dependent on the concentration. The least active is physiological saline. With greater and less concentrations of the salt, the amount of juice is greater. Weak sodium carbonate 0.25–0.5% acts like water. With greater concentrations there is an increase. The maximum secretion is at the end of the first hour. Saliva and bile act like water. Bile precipitates pepsin and inhibits gastric digestion. The action of alcohol is most pronounced during the first thirty minutes. At this time both secretion and absorption are at their height. No other juice than gastric juice is produced. When certain substances such as sodium chloride and acids are applied locally, a profuse secretion of mucus takes place which

¹ Osler: Principles and Practice of Medicine, 1898.

¹ Skand. Arch. Physiol., xviii, pp. 194–262 (1906).