

farction in kidney substance, but the entire pelvis of each kidney presents a uniform thick hæmorrhagic layer of mucosa extending up into each of the calices and terminating sharply below at the beginning of the ureters; rest of ureters normal.

Bladder contains a little opaque, brownish urine, found by Dr. Ruttan to be free from methæmoglobin, chlorate of potassium and phenol, but to contain numerous tube casts. Uterus large, pear-shaped; mucosa reddish. Cicatrices about os. In right ovary a recent corpus lutum.

Liver weighs 2180 grms. On section central portion of lobules distinct.

Spleen 360 grms., very large and soft, of greyish-red colour.

*Microscopic Examination.*—Microscopic examination of gums near the site of the ulceration shows small cell proliferation of sub-mucosa. The surface epithelium is not necrosed. Moderate number of streptococci and diplococci on surface, none in deeper parts of gum.

Microscopic examination of the kidney shows swelling and degeneration of the epithelium. The hæmorrhagic areas of the pelvis show thick layer of streptococci.

Cultures from pelvis of kidney and from spleen give growth of streptococcus pyogenes.

My second case was that of a young man in apparently good health who came to me with a large abscess of the cheek. This abscess had developed immediately after the extraction of a molar tooth. The abscess contained fully an ounce of thick, creamy pus.

I quote from the *Dominion Dental Journal* for January, 1894, a case of infection and abscess of the cheek reported by W. Geo. Beers, L.D.S. I do this to show that the dentists are alive to the danger of dirty instruments and at the same time to illustrate the carelessness of antiseptic principles that obtains among some of them.

A young lady in perfect health applied to a dentist to have a cavity in a molar tooth filled. The young lady noticed that the bur was stuck up with what appeared to her the dust of teeth collected during previous operations. The bur slipped twice and injured the soft parts in the neighbourhood of the tooth. This was followed by suppuration and a very troublesome abscess.

This experience very naturally led me to study the subject of the bacterial flora of exposed mucous surfaces.

I find that all the micro-organisms that may be present in the air, food and ingested fluids may appear temporarily in the mouth. The number of bacteria which have been cultivated from the human mouth is very large. Miller has isolated over one hundred species.