

**General Lectures (101) ~ (200)**

**101. A HISTOPATHOLOGICAL STUDY OF PROTRACTED GASTRIC ULCER**

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The purpose of this paper is to discuss some of the morphological histological characteristics of protracted gastric ulcer derived from surgical specimens in twenty eight cases.

The histological findings in these series disclosed that there were considerable numbers of ulcers accompanied by transversely extending scars which could not be proved macroscopically.

Out of 12 cases of persistent type, 10 showed histologically ulcers with linear or transversely extending scars and only 2 showed round ulcers {and scars, although macroscopically round ulcers were found in 5, transversely oval ones in 3 and linear ones in 4.

In the recurrent type, on the contrary, all 12 cases except one with linear scar showed round or oval ulcers and scars both macroscopically. The histological features of ulcerous scar found in 4 cases of transitional type were similar to those of persistent type.

It is noteworthy to state that the most of the linear ulcers or scars were found in persistent and transitional type of ulcers with only single exception in the present series.

It has been well accepted that linear ulcers are different in healing and we believe that is true. But our results seem to show that the persistence of ulcers itself will make one of the main courses for the development of linear scars, although the formal genesis of them is not yet solved.

**102. HISTOCHEMICAL DEMONSTRATION OF CARBONIC ANHYDRASE  
ACTIVITY IN THE PARIETAL CELLS OF THE RAT STOMACH  
—RELATION TO THE SECRETION OF HCL—**

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The studies previously reported by us have demonstrated an increase in the succinic dehydrogenase (SDH) activity of parietal cells in the stomach after histamine stimulation.

The present study aims at demonstrating the histochemical localization of carbonic anhydrase (CAH) in the stomach and its relation to the secretion of HCl. The rats received intra-muscular injection of Histamine or Buscopan were sacrificed according to the laps of time, CAH and SDH activities were examined by Häusler's and Waxtein's Methods.

CAH activity in control animals was diffusely demonstrated in the cytoplasm of parietal cell and showed fine granules of brown black appearance. No reaction occurred in the other cells.

Increase in CAH activity at the basal part of mucous membrane was observed at 10 minutes after the histamine stimulation. Thereafter CAH activity was gradually extended to the other parts by the laps of time.

In the rats following the injection of Buscopan, histochemical localization and change of CAH is inversely proportional to the finding occurred after the injection of Histamine.

SDH activity was almost the same reaction as CAH activity in the rats either injected Histamine or Buscopan.

The dates described above suggested that there was the close correlation between the CAH activity in the stomach and secretion of HCl.