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THE INCIDENCE OF GASTRODUODENAL ULCER IN ALLERGOPATHICS

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Whether gastro-duodenal ulcers may or may not have an allergic pathogenesis is a problem which has been discussed for years. Valid arguments exist both for and against this theory.

For

- 1) An experimental gastric ulcer can be provoked with an Arthus-type phenomenon (3-6-7-8).
- 2) Increased blood level of histamine in acute stage of gastro-duodenal ulcer (1-2-4-9-10).
- 3) Anatomico-pathological similarity between peptic ulcers and experimental ulcers caused by histamine (11).
- 4) Ulcers symptomatology increases in "seasonal waves".
- 5) Antihistaminics have a positive therapeutic effect on ulcers (1-9-10).

Against

- 1) In peptic ulcers the sub-mucosa is constantly involved; in lesions of ascertained allergic origin the alterations are mainly limited to the mucosa.
- 2) Lesions of ascertained allergic origin are characterized by their rapid reversability, whereas peptic ulcers are chronic in character.

Many Authors believe that these differences are not clearly cut, and that an allergic factor plays a part in the pathogenesis of all ulcerative manifestations of the stomach and duodenum.

The gastric mucosa may become sensitized toward a food substance; or toward an intermediate product of digestion, and this is most probably the case; or toward some other allergen which reaches the stomach through the blood stream, after penetrating the organism by some other route.

Predisposing factors also play an important role in establishing a state of gastric allergy: hereditary factors, inflammation, gastric hypoacidity etc.; before reviewing the other moments involved, we shall consider the individual tendency toward hypersensitization, the premise of every allergic phenomenon.

METHOD OF RESEARCH

The object of our research was to determine the number of ulcer cases among the patients examined in the Allergy Section of the Clinica Medica of Bologna.

In all these patients the diagnosis of allergic disease was carefully ascertained: particular importance was placed on the existence of allergic phenomena in the patients family, on the possible coexistence of other allergic phenomena in the patient, on the manner in which the manifestations occur (attacks etc.), and above all, on the identification of the allergens involved, using skin tests (intradermal, patch, passive transfer), then confirming results by elimination and provocation tests.

Diagnosis of gastro-duodenal ulcers were always confirmed by radiological examination.

Almost all our patients came from the Emilia and Romagna regions; ages ranged from 5 years to 59 years, average 38 years.

In a total of 634 cases, 459 patients had disorders of the respiratory apparatus (bronchial asthma and rhinitis), 160 of skin (urticaria, eczema, Besnier's pruritus, Quincke's oedema), 15 of nervous system (headache). Ulcerative disease was found in 42 of these patients (6.6 %).

TABLE 1

	Gastro-duodenal ulcer	
	No. of patients	No. of patients
Respiratory allergy	459	27
Skin allergy	160	14
Nervous system allergy	15	1
Total	634	42

The relationship between allergic disease and gastro-duodenal ulcers is shown in Table 1.

Inasmuch as the percentage of ulcer cases in otherwise "normal" individual is known, the incidence which we found acquires significance. *De Franchis & Pinelli* (5) (1948) in their publication on the seasonal incidence of gastro-duodenal ulcers found that out of 200,000 patients aided by the I.N.A.M. (Insurance Organization) in the province of Bologna, 1682 had gastro-duodenal ulcers, an incidence of 0.8 %.

This percentage is much lower by that found by us.

The chronological relationship between the appearance of the allergic disease and the ulcerative disease is given schematically in Table 2.

TABLE 2

Onset of allergic disease preceding gastro-duodenal ulcer:	28 cases (24 respiratory allergy 4 skin allergy)
Onset of allergic disease following gastro-duodenal ulcer	10 cases (3 respiratory allergy 7 skin allergy)
Onset of allergic disease simultaneous to gastro-duodenal ulcer:	4 cases (1 respiratory allergy 3 skin allergy)

It is evident that in most cases the allergic disease precedes the ulcerous one; generally speaking, in fact, the history of these patients usually shows that the onset of the allergic disease occurs in childhood or youth, and the clinical and radiological manifestations of ulcers only years later.

RESUME AND CONCLUSIONS

The most important facts shown in this research are:

1) Ulcerative disease is more frequently found in allergopathics than in non allergopathics.

2) In most cases the allergic manifestations precede the ulcerative.

We believe that this datum acquires value when associated with other elements in favour of an allergic pathogenesis of gastroduodenal ulcers. We are led to believe that the ulcer is the result of a series of small, local, anaphylactic insults, which at first produce reversable alterations of the gastric mucosa, and gradually lead to a more widespread destruction of tissue which acquires the chronic character of the peptic ulcer.

This phenomenon occurs prevalently in constitutionally allergic subjects; the gastro-duodenal ulcer should be considered a local manifestation of a generalized condition; it is provoked by microstimuli which have acted locally as the revealing factor.

SUMMARY

In a group of 634 allergic patients gastro-duodenal ulcer was found in 42 (6.6 %).

The incidence of gastro-duodenal ulcer in non allergic patients was 0.8 %.

The authors consider these findings statistically significant in favour of the allergic pathogenesis of gastro-duodenal ulcer.

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