ANATOMOPATHOLOGIC ASPECTS OF OVARIAN ENDOMETRIOSIS

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Summary: The Authors reviewed 284 cases of endometriosis; it interested all age ranges with prevalence of four and fifth decades and showed a range of 19-68 years.

Favourite sites was ovary with 271 cases, remaining were: tubes, omentum, vagina, vulva and cecum.

The histological appearance is similar to normal endometrium but these foci react to hormonal stimulation variably.

Endometriosis is "the condition in which a tissue, resembling more or less perfectly the endometrium, is present in other sites" ([10]). This was pointed out for the first time by Von Rokitanski (1860) ([12]).

This pathology still arouses interest today, inasmuch as the causes for the endometrium being found in sites differing form the normal one are still unclear.

It is held that the endometrium may arrive in the ectopic site by detatching itself from the normal one, ([11]) or that it originates in situ; and in this case the theory that upholds a metaplastic process, is generally preferred ([4, 9]).

Endometriosis, practically unknown in the premenarch years, is rarely observed above the age of 20, and exceptionally in post-menopausal age. Its freuqent occurrence is during fertile age, between 30 and 40 years. In the nulliparous the average age is 28.5 years, while in the pluriparous it is 37 ([1]).

Endometriosis may determine sterility through the formation of adherences, up to clinical pictures of congealed pelvis. Pregnancy has a beneficial effect on endometriosis ([6, 7]) which may be attributed to elevated doses of progesterone, capable of provoking the atrophy of the centres of endometriosic tissue.

With regard to frequency, it is observable in 5 to 18% of all surgical interventions on the pelvis ([8]). Endometriosic centres are, besides, present in 30% of the laparotomies carried out for sterility.

Symptomology may be lacking in slight cases of endometriosis, while in advanced dysmenorrhea, pelvic algae, menometrorrhagia, pain on defecation and dyspareunia can be encountered.

MATERIAL AND METHODS

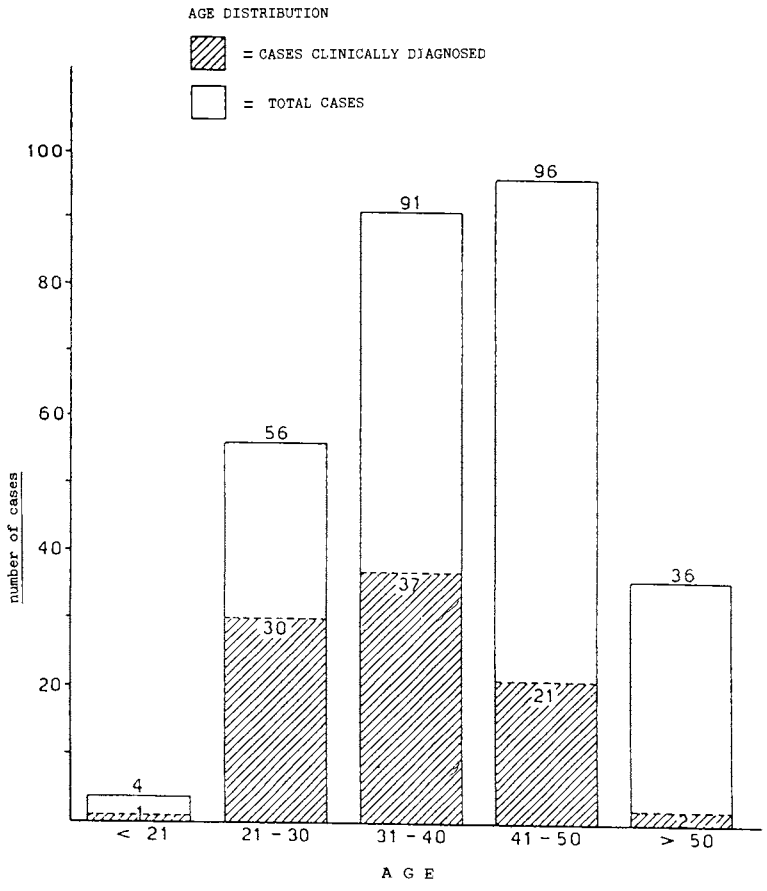
In our study we reviewed 284 cases of endometriosis; the material examined was represented by total hysterectomy with bilateral anexectomy in 150 cases, ovariectomy or partial resection of the anexes in 120 cases, and by other resections in 10.

Particular attention was given to the observation of the various aspects of the endometrioses, various aspects corresponding to the different evolutive stages of the lesion, reddish or black spots, isolated or widespread; the reddish are more recent, the black of earlier date.

Cysts " like chocolates " are of different diameters which, in the ovaries, may vary from 4 to 10 cm, but rarely exceed 15 cm. The contents is of brownish liquid; the internal surface, generally smooth, is full of haemosidering deposits. Endometriosic cysts have a tendency to burst and perforate the host parenchima, leading to the formation of adherences and fibrous bridles.

Endometriosis is reported in all age ranges, with a nett prevalence of those between 35-50 years, in which 66% of cases are found.

TABLE 1. — *Endometriosis case series.*



RESULTS AND DISCUSSION

Our enquiry showed a range from 19 to 68 years, in particular 5 cases below 21 years, and 4 over 60.

We considered together the period from 31 to 50, since the decade 31-40 and the following one, 41-50, showed an incidence that was almost superimposable (91 and 96 cases respectively).

From a clinical point of view the endometrioses were suspected pre-operatively in a third of the cases.

Subdividing the report itself on the basis of the various age-groups we see how the incidence of correct clinical diagnosis is, being very variable from a minimum of 5.5% over 50 years to a maximum of 53.5% of exact diagnoses in the age range from 21 to 30 years (table 1).

With regard to the associated pathology, this is held to be of slight importance, inasmuch as its verification is purely fortuitous and completely extraneous to the symptomatology that led to the surgical intervention.

In our study the most frequent site of encounter with endometriosis was the ovary, 271 cases out of 284. In 246 cases out of 271 the ovary represented the

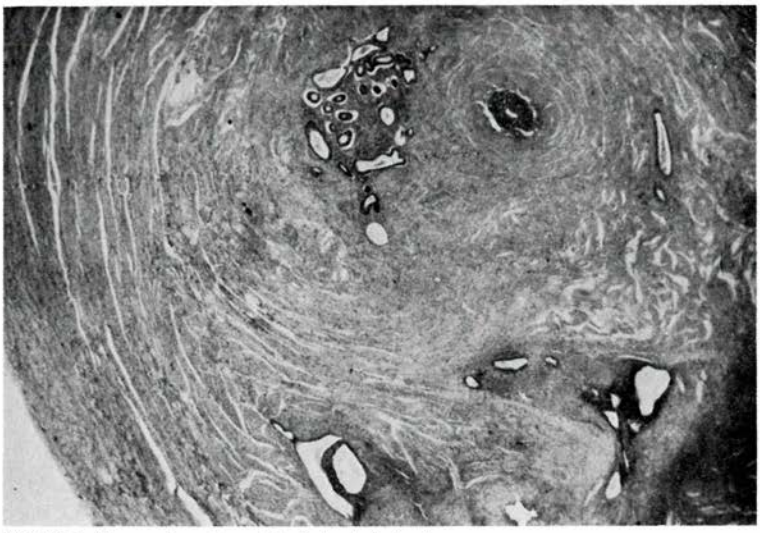


Fig. 1. — Multiple focus of endometriosis in tubal site.

only site; in the remaining 25 cases, on the other hand, beside the ovarian localisation we met others in extra-ovarian sites. The localisation on the left prevailed over the right, where we found respectively 96 cases on the left and 42 on the right. In the remaining 133 cases the endometrioses were bilateral.

Intramiometrial, also called adenomiosis, was present in 16 cases out of 154 surgical resection of ITA, equal to 10% of the cases.

The walls of the tubes were affected in 10 cases. An intraligamentary localisation was present in 5 cases. A localisation at the omentum-mesentery level was met in

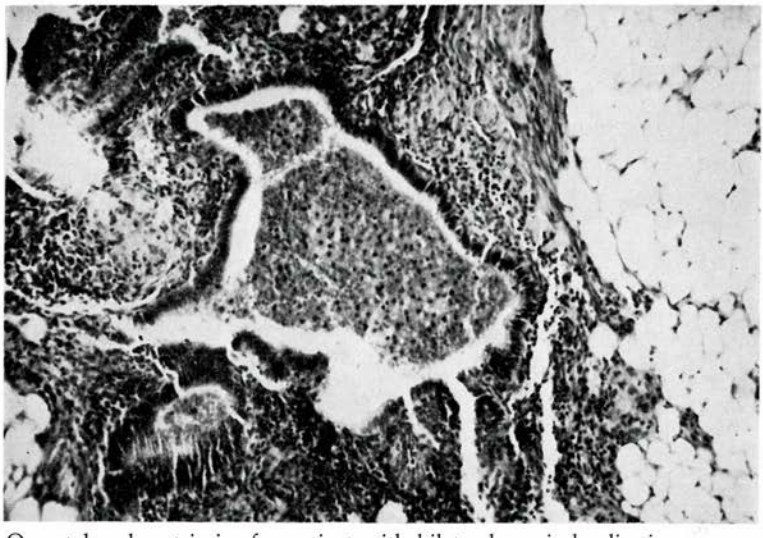


Fig. 2. — Omental endometriosis of a patient with bilateral ovaric localization.

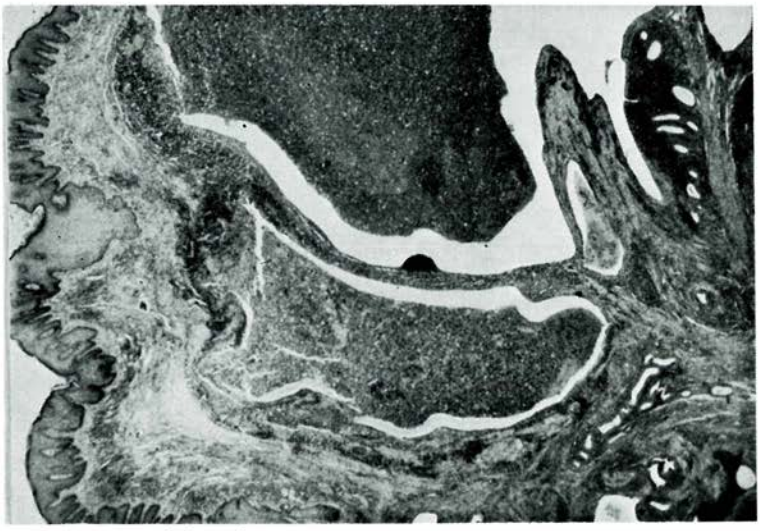


Fig. 3. — Endometriosis of the vulva.

2 cases. Vaginal endometriosis was present in 2 cases (34 and 23 years). In the vulvar site there was only 1 case (38 years); and still only one case in cecal localisation (51 years).

Under the miscoscope the endometriosic centre is constituted, in the majority of cases, of tissue altogether similar to normal endometrium, with the presence of glands and stroma. It respands besides to hormonal stimuli, even if variably. Modifications may be observed of maturation not always corresponding to the hormonal phase. The endometriosic centre may pre-

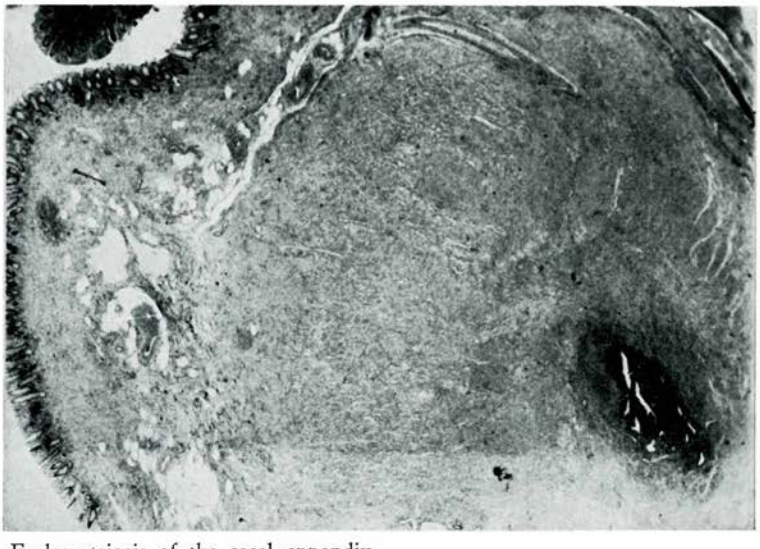


Fig. 4. — Endometriosis of the cecal appendix.

sent secretive or quite decidual modifications, with formations of true spiral arterioles, or may appear altogether similar to corporal endometrioses.

In a general way, however, it seems that the further the endometriosic centre is from the endometrium, so much less is the response to cyclic variations.

If we compare our study with the data in classic literature we find, regarding the age of onset, there is an inclination towards the older age group; while the site of localisation is in perfect agreement with the data which recognises the ovary as the preeminent site (80%).

Globally, in our case series, the utero-ovarian-tube localisation covers 96.5% of cases, and the ovary as unique site, mono- or bilaterally in 86% of cases.

Our datum of a certain predilection of endometriosis for the left ovary in respect to the right, does not find correspondence in literature, in which commonly reference is made to mono-or bilateral forms without further specification. With regard to the morphologic aspect, we consider that two forms must be considered: the first is characteristic of the ovary, the so-called "chocolate cysts", in which the Perls coloration reveals the outcome of repeated endocytstic hemorrhages. The second, instead, is characterised by agglomerates of stroma and endometrial glands, which may be of various dimensions and tend towards the cystic cavitation, with progressive increase in size.

Whether the two forms reflect two different entities or two phases of the same pathologic process it is not yet possible to say.

In only two cases did we observe a pseudo-decidual transformation of the stroma, maybe following a progestinic therapy. Such a morphological aspect is correlatable to the well-known clinical datum by which gravidic or exogenous progesterone does not allow a definite cure for endometriosis. Even conservative surgical therapy, however, is unable to eliminate an endometriosic centre definitely. A final problem is false clinical diagnosis of neoplasia which seems rather frequent, particularly when the site is anomalous.

CONCLUSION

With regard to the etiopathogenesis, we cannot personally formulate a theory nor give fundamental support to those proposed in literature. Besides those already quoted it seems opportune to record, for the sake of completeness, that which maintains the origin of these areas by the residues of Muller and Wollf, and again that which hypothesises the origin by cystic follicles and by corpus luteum cysts, whose cells have been submitted to an endometrial metaplastic process [5]; and finally, the possible venous dissemination [11] of islands of proliferative endometrium having been observed in the venous vessels of the uterus, per via lymphatica [2, 3].

It seems to us that direct implantation is contested by the rarity of the localisation of endometriosis in the lower genital tract, physiologically crossed by the menstrual endometrium, as well as being frequentl submitted to surgical manoeuvres.

The way of the hematic vessels would seem to be the most probable for a pathology that is so frequently encountered upstream, and not is sites anatomically downstream from the endometrium.

Endometriosis, which also in our experience, reveals the multiplicity of its aspects and its sites, remains a condition still etiopathologically under discussion.

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