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Case Report

Ectopical Decidua Formation in the Ovary (So-Called Deciduoma)

W. Bersch, E. Alexy, H.-P. Heuser, and H. J. Staemmler

Women's Clinic of the Municipal Hospital at Ludwigshafen
(Director: Prof. Dr. H. J. Staemmler)

Pathological Institute of the Municipal Hospital at Ludwigshafen
(Director: Prof. Dr. C. H. Velten)

Pathological Institute of the University of Heidelberg
(Director: Prof. Dr. W. Doerr)

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Summary. This case report describes a case of an ectopical decidua formation in the ovary of a pregnant woman. It is pointed out that intensive regressive alterations of this so-called deciduoma may possibly lead to false diagnoses.

The subject of its development is discussed with reference to the pertinent literature.

The purpose of this report is to describe a case of a decidua-type stroma transformation in the ovary of a pregnant woman, since the histological aspects of the distinct regressive alterations of this stroma transformation first led to the assumption that this case represented a metastasis of a malignant tumor showing a tendency towards phlegm obstruction.

Clinical Data

Development of a mongoloid male child (deceased 10 days after birth) through Caesarean section on a 45 years old, initially pregnant patient with an unobtrusive personal, familial and gynecological anamnesis and an uncomplicated pregnancy, one week prior to the established date of birth, because of the risk of an imminent asphyxia of the child. Simultaneously, a sterilization according to Irving was performed on the patient upon her own wish. Hemorrhage in the area of the right adnexa with subsequent extirpation of the tuba uterina and of the ovary.

Detailed tissue Examinations

Processing of the ovary after formal infixation and paraffine bedding in the usual manner into successive sectional series. Colorations: Hematoxylin-Eosin, Giemsa, Elastica van Gieson, and PAS.

The histological picture indicates multilocular, tumorous areas located immediately beneath the epithelium and consisting primarily of polygonal cells in a loose configuration (Fig. 1). The sizes of cells and nuclei differ considerably. Individual crumbly mitosis patterns can be recognized. In the PAS-coloration, positive granules are frequently visible in the cytoplasm. Cellular deformations in the form of dendritic elongations are predominant throughout the picture. (Fig. 2). The interstices are thoroughly edematose and show a tendency towards phlegm obstruction. An intensive capillarization is very obvious (Fig. 3). The capillaries are alternately hyperemic and frequently filled with lobed nucleus leucocytes. The basal limitations of these areas towards the ovarian stroma is not always clearly defined, but these altera-

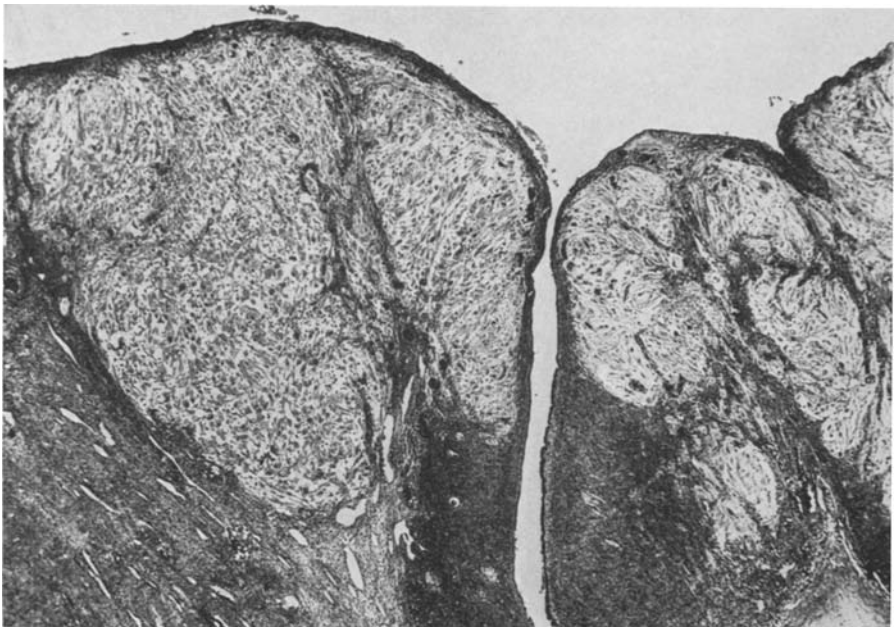

Fig. 1. Ovary of a 45 years old, initially pregnant patient. Multilocular formations of a so-called deciduoma located beneath the epithelium. Coloration: HE, magnification: ×25. (E. No.: 18374/75/76/72 Pathological Institute, Municipal Hospital at Ludwigshafen)

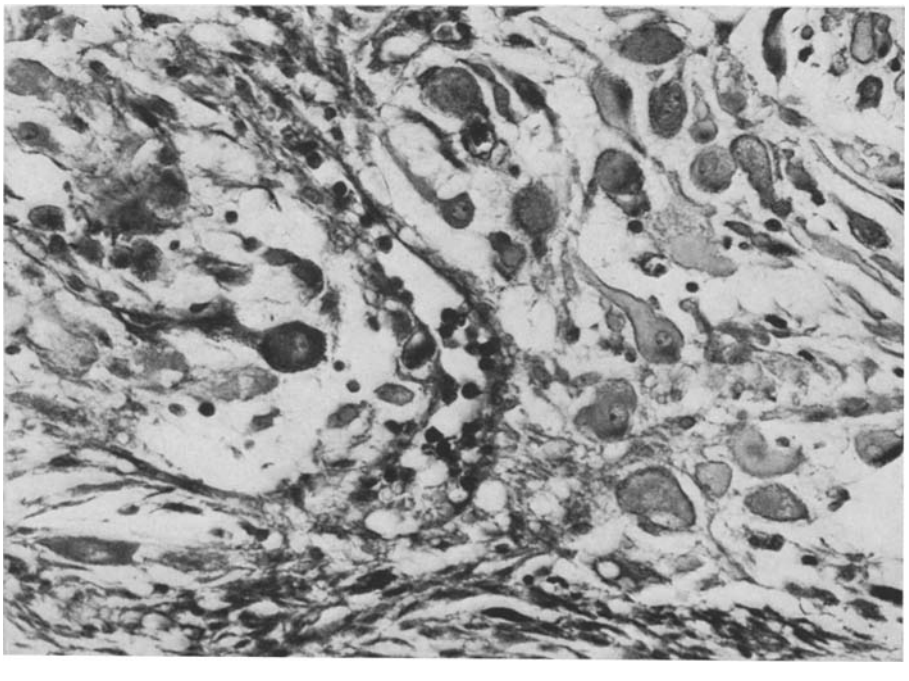

Fig. 2. Same case: Edematose interstices, polygonal cell formations in a loose configuration with regressive alterations. Coloration: PAS; magnification: ×270. (E. No.: 18374/75/76/72 Pathological Institute, Municipal Hospital at Ludwigshafen)

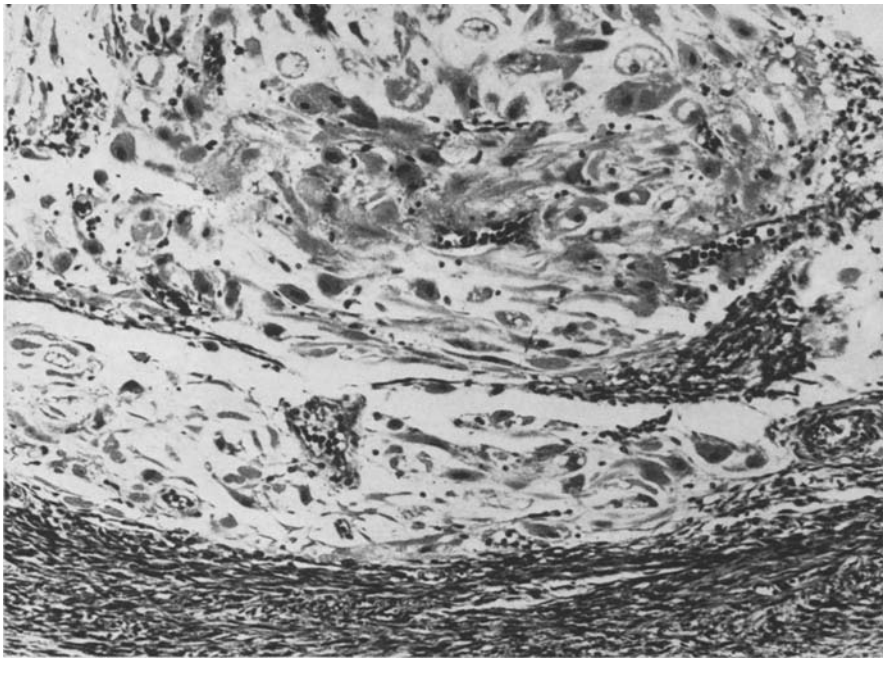

Fig. 3. Same case: Distinct capillarization of the so-called deciduoma; tolerable limitation towards the ovarian stroma. Magnification: ×120, coloration: HE. (E. No.: 18374/75/76/72 Pathological Institute, Municipal Hospital at Ludwigshafen)

tions remain limited to the superficial layers of the ovary. The morphological picture of the tuba uterina and of the remaining portion of the ovary does not show any extraordinary features.

Evaluation

Characteristic, regressively altered, multilocular ectopical decidua (so-called deciduoma) of the ovary during pregnancy.

Summarized Discussion

Ectopical decidua formations during pregnancy are initially described by Walker (1887) and Dobbert (1891). Relatively infrequently, however, they are also found without gravidity (Schiller, 1924/1925; Schereschewsky, 1931). The production of ectopical decidua tissue in animal experiments was achieved by Loeb (1907) through the copulation of guinea-pigs in whose uterine wall he had previously implanted traumatic injuries.

These examinations may have been the reason for the assumption that an "irritation" in its largest sense was the cause of development, coupled, however, with hormonal factors (Loeb, 1907). Thus, according to Meyer (1913a, b) the decidual tissue reaction — wherever it may be located ectopically — is an indication of a previous or actual inflammation. Lauche (1923) rejects an inflammation as

the cause of development of ectopical decidua and rather ascribes it within the scope of endometriosis. An increasing number of authors in the more recent literature (De Josselin de Jong and de Snoo, 1925; Weller, 1935; Hertig, 1961) also favor this theory of development, the problem itself being merely referred to another level.

As a consequence, this brings up the question of the cause of endometriosis. With regard to the development of endometriosis, three theories appear substantially important:

1. Transtubal reflux of menstrual blood with the displacement of endometrium germs and peritoneal implantation (Sampson, 1925).

2. Displacement of endometrium germs through lymph or blood vessels (Javert, 1949).

3. Metaplasy of the coelom mesothelium (De Josselin de Jong and de Snoo, 1925; Hertig and Gore, 1958).

The specific definitive mechanism of the development of endometriosis and *the specific* peculiar stimulant actually causing the morphological stroma transformation — and thus the decidual transformation too — are unknown (Hertig, 1961).

In agreement with De Josselin de Jong and de Snoo (1925) and Hertig (1961), we consider the theory of the omnipotence of the coelom mesothelium to be the most probable cause of development. Decisive for the stroma transformation is probably, in addition to an irritation — either trauma (Loeb, 1907) or inflammation (Meyer, 1913) — an adequate hormonal stimulation.

As we have seen, ectopical decidua throughout the abdominal area during topical and ectopical pregnancy — in the ovary first described by Schmorl (1897) — is a not too infrequent finding (Gögl and Lang, 1957; detailed discussion contained in their literature).

In the meantime, we have also been able to observe, among 21 wedge excisions obtained from the ovaries of pregnant patients in abdominal sectional deliveries, 20 cases of decidual stroma transformations of the ovary with characteristics of differing degrees.

At this time, however, this will not be discussed in detail since a detailed, primarily clinical evaluation of the examined matter is in the process of preparation.

As far as we have been able to survey the pertinent literature of the last decade, we have noted a lack of descriptions of such findings which, in our opinion, could be of particular importance. If regressive alterations are predominant as in the case described herein, and the typical morphological picture is neglected, this may ultimately result in false diagnoses.

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Prof. Dr. med. H. J. Staemmler
Dr. med. E. Alexy
Dr. med. H.-P. Heuser
Frauenklinik der
Städtischen Krankenanstalten
D-6700 Ludwigshafen a. Rhein
Bremserstraße 79
Federal Republic of Germany

Dr. med. W. Bersch
Pathologisches Institut der
Universität Heidelberg
D-6900 Heidelberg
Berliner Straße 5

Present address:
Pathologisches Institut der
Städtischen Krankenanstalten
D-6700 Ludwigshafen a. Rhein
Bremserstraße 79
Federal Republic of Germany