Immature teratoma primary of the uterine cervix
First case report

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Summary: The extragonadal germ cell tumours represent 1-2% out of all the germ cell tumors. The retroperitoneal and the mediastinic spaces are the most common localizations. Visceral localizations are very infrequent. We present a case, the first described in literature, of immature teratoma of the uterine cervix in a 13 year old girl.

Key words: uterine cervix; immature teratoma.

CLINICAL CASE

M. J. M. G., girl, 13 years old, consulted our emergency clinic because of red vaginal discharge, vaginal sensation of heaviness and micturitional difficulty for a week. The menarche took place at 12 years, and the familiar and personal antecedents were found to be non-contributory.

The initial examination detected the presence of a mass occupying the vagina and appearing in the vulva, that was friable and bled when touched (Fig. 1). The origin could not be fixed.

A clinical examination under anaesthesia was indicated in which it was verified that the mass was dependent on a pedicle settling in the cervix.

A tumorectomy was performed (Fig. 2, 3) and biopsies were taken from the pedicle, endocervix, and endometrium.

The surgical specimen was 228 gms weight 12 cm long and its maximum diameter was 5 cm (Fig. 4).

In its inner part there were multiple cysts variable in size, several of them occupied by mucus, separated by a homogeneous soft tissue, with yellow haemorrhagic areas.

The microscopic examination by hematoxylineosin staining (Fig. 5, 6, 7) revealed a great variety of images in relation to the area which was studied.

Macro- and micro-cystic cavities were coexistent. They were covered by mature epithelium, sometimes immature epithelium, occasionally resembling intestinal-type, or Fallopian-tube, or cervical epithelium. No epidermic epithelium was observed.

The stromal part consisted of connective tissue including some groups of vessels with a vascular wall increased in gross, and abundant hyaline cartilage. Extensive areas of the tumor were composed of immature and hyperchromatic cells with frequent mitosis, whose appearance was similar to the Wilms tumor. In these areas necrotic and haemorrhagic lesions were present, sometimes the haemorrhage was organized. Other zones were composed of immature mesenchymal tissue in rhabdomyoblastic differentiation.

Structures consistant with other germ cell tumours were not found in any of the multiple histological sections.

The alpha fetoprotein (αPF) and the beta human chorionic gonadotrophin (βHCG) stainings were negative.

The biopsic specimens of the pedicle, endocervix and endometrium did not show any anomaly.

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Teratomas:
1) Immature
2) Mature
3) Monodermal and highly specialized.

Immature teratomas are malignant neoplasias. They include immature histological features and, very often, mature elements. The Pathological study must be extremely careful in order to dismiss tumor areas consisant with others germ cell tumours that could invalidate the diagnosis of immature teratoma.

The extragonadal germ cell tumours are neoplasias histologically identical to those of gonadal origin which develop mostly in mediastinal (1), retroperitoneal (9), pineal glands (8) and presacral areas (20). In addition to this there exists, moreover, the so called “anaplastic germ cell tumor” of unknown origin (23).

DISCUSSION

Teratomas are the most frequent germ cell tumours. The histological classification of the World Health Organization (WHO) establishes three groups:
Initially, these neoplasms were diagnosed as metastases of gonadal tumours in which, because for some unknown reason, the primary tumor has had spontaneous remission (1). Actually, we accept the existence of germ cell tumours in primary extragonadal location, developing from a malignant transformation of germ cells that remain trapped along their migration during the embryonal development, being frequently located in the midle line of the body.

The case here reported accomplishes, therefore, the conditions for the exact histological typification of this tumor as germ cell tumor, immature teratoma of the cervix, the histological appearance resemblance is characteristic, with immature germ areas beside well differentiated zones, and with the lack of features that could be identified with other types of germ tumours.

In addition to this, the aFP and the bHCG specific tumor markers being negative – in the histological section and in plasma – the existence of differentiated
zones of endodermal sinus tumor or choriocarcinoma can be ruled out (3, 11).

Moreover, the biopsic and laparoscopic exploration of the rest of the genital organs, and the research of the other extragonadal localization were negatives, and so we can affirm its primary cervical localization.

The real incidence of the extragonadal germ cell tumours is unknown though we know that they represent 1-2% out of all germ cell tumours (6). The more frequent extragonadal teratomas are placed in the retroperitoneum (4) and mediastinum (5). Visceral localizations are extremely rare. Only a few cases of each primary place
have been published: germ cell tumours of parotid gland \(^{27}\), breast \(^{1}\), pericar
di um \(^{30}\), esophagus \(^{18}\), stomach \(^{15}\), intes
tine \(^{22}\), liver \(^{13}\), lung \(^{14}\), kidney \(^{19}\), prostatic
gland \(^{4}\), urinary bladder \(^{1}\), vulva \(^{29}\), vagina \(^{5}\), fallopian tube \(^{31}\), placa
centa \(^{10}\) and uterine corpus \(^{21}\). There are no references in literature to any germ
cell tumor of the cervix.

The treatment of the extragonadal tera
tomas is not distinct from their gonadal homol
gues.

Actually we dispose of modern chemio
therapeutic regimes \(^{8, 12}\) that have helped
to better the prognosis.

In the case we are dealing with the Tumours Committee of our Hospital, tak
ing into account the age of the patient, the localization of the tumor and the ab
sence of metastases, decided not to add complementary treatment to the single
tumorectomy performed.

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