ABSTRACT BOOK

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VIRILIZATION IN FEMALE NEWBORNS DUE TO LUTEOMA OF PREGNANCY

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Introduction. Luteoma of pregnancy is a rare, benign, non-neoplastic, uni- or bilateral ovarian tumor-like mass that emerges during pregnancy and like the potential virilization of mother as well as her female child postpartum, they spontaneously recede in about 3 months. However, they may cause complications due to a mass effect or hemorrhage secondary to torsion. It is usually asymptomatic, detected incidentally during laparotomy (cesarean section or postpartum tubal ligation) in late pregnancy and require no radical surgical treatment. It is felt to be a non-neoplastic lesion hormonally active or stimulated with production of androgens resulting in maternal and fetal hirsutism and virilization respectively. It is due to an unusual response of ovarian stromal cells to the altered hormonal levels of pregnancy and is characterized by solid proliferations of luteinized cells resulting in a tumor-like ovarian enlargement.
Aim to determine virilizing effect of luteoma of pregnancy on mothers and female newborns.

Materials and methods. The research is based on medical statistical data which was obtained from a hospital in Nigeria. Endocrine studies were performed in 2 cases of luteoma of pregnancy. It was determined the level of peripheral testosterone, androstenedione, dihydrotestosterone, progesterone, 17 alpha-hydroxyprogesterone and estradiol in the blood One of them was seen with hirsutism during a second trimester pregnancy and then discovered during cesarean section, the other was discovered incidentally at the time of postpartum tubal ligation, they were both found to be functionally active, secreting several androgens.

Results of research. Steroid concentrations were measured in the ovarian vein blood draining the luteoma in one patient as well as in peripheral vein and cord blood in both patients:Peripheral testosterone, androstenedione, dihydrotestosterone, progesterone, 17 alpha-hydroxyprogesterone, and estradiol were increased severalfold higher than the normal controls.
The concentrations in the ovarian vein were significantly greater than those in the peripheral vein and cord blood, which indicates active secretion of these steroids by the luteoma.

Conclusions. High maternal serum testosterone levels due to a luteoma can result in virilzation in the female newborn. Determination of serum androgen levels taken at intervals post partum, indicated spontaneous regression of the luteomas. Urinary 17-ketosteroids, and plasma testosterone fell from markedly abnormal values to normal limits within 2 weeks of delivery. Patient's condition improved as well. Although the mass significantly decreased in size postpartum, it could still be visualized, through ultrasonography, 14 months postpartum. Recognition and an accurate diagnosis of this entity is important since it can be confused with ovarian malignancy, so that unnecessary oophorectomy, with concomitant risk to both the mother and the fetus, is avoided.

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