The first case was a vulva metastasis of a squamous cell carcinoma of the cervix — stage 4. At the end of the treatment the tumour had almost disappeared but recurred 2 months later at the same place.

The second case was a recurrence 5 years after vulvectomy. 6,000 rads were distributed in 6 weeks on the isodose 90% with a 4 cm diameter field and 15 MeV. At the end of the treatment, a biopsy performed in a residual nodule showed the persistence of neoplastic cells. That lesion has been treated by radium puncture.

It seems that such a failure of electrontherapy should be attributed to the small size of the field as first by SCHUBERT mentioned.

The 9 other cases, which underwent a full course of electrontherapy and among which there were 2 recurrences after vulvectomy, are now living symptom-free.

However, the short period of observation of these cases does not allow of any conclusion regarding long-term results.

Bibliography

1. DE SAIVIE, P., O. GOSSELIN, H. RAMIOUL et A. COLLARD: Considerations thérapeutiques à propos de 102 cas de cancers vulvaires et vulvo-urétraux (spécialement au point de vue de leur exérèse large au bistouri diathermique). Gynaecologia 129, 93—122 (1950).


3.2.20. Irradiation of the Cervical Carcinoma During Pregnancy, by Means of an Electron Beam Applied Transvaginally

(Observations on one case)

By

PIERLUIGI COVA and A. MAESTRO

Cervical carcinoma during pregnancy should be treated as follows:

If developed within the third month of pregnancy, it should be treated as for non-pregnant cases. In these circumstances the foetus is not awarded prime consideration and cannot be saved, regardless of the course of treatment so far adopted.

Whereas the farther the progress of pregnancy, the more important does the foetus become. The last three months are vitally important. If pregnancy is completed and therefore the foetus is sure to be alive, the first step is undoubtedly a Caesarean section, to be followed either by totally enlarged hysterectomy or by ray treatment, according to the carcinoma's extension.
Irradiation of the Cervical Carcinoma During Pregnancy

Should the foetus not have reached full maturity, an intravaginal radium treatment can be applied, at least to arrest the tumour's growth and allow the progress of pregnancy. In such a case, though the foetus is not close to the source of irradiation, still it is not sufficiently far and can easily suffer local injury such as baldness, skin trouble to buttocks, to scrotum etc., as we could personally witness.

The most difficult period in which to choose suitable treatment is that spanning the fourth, fifth and sixth month. Not yet alive, not close to becoming alive, still the foetus evidences its existence and demands greater responsibility and attention. The general course is to

1) perform surgery up to the 4th and 5th month;
2) apply careful intravaginal (not intracervical) ray treatment during the 6th month; thereafter wait for sufficient maturity of the foetus and perform a Caesarean section.

These conditions afford the greatest risk of foetal injury by ray treatment: radium-dermatitis, short weight due to prematurity and mental retardation. If the tumour is beyond surgery, the foetus acquires priority over the mother.

Today high energy electrons from a betatron offer the best method for treating the tumour and simultaneously safeguarding the foetus, thanks to

1) the possibility of controlling the energy and thus the depth of beam penetration into tissues, and
2) practically no side-scattering.

If the vagina is wide enough to receive a limiting cone having 5—6 cm inner diameter, a confined cervical carcinoma can be satisfactorily treated by means of an electron beam. This method represents an indisputable advantage over SCHÄFER and WITTE’s mesopesiotherapy: the betatron beam a) reaches deeper if required, b) ceases at required depths and c) distributes the surface dose more evenly.

With a narrower vagina, transvaginal treatment can still be performed, to a certain extent, with limiter cones of smaller cross section.

Some cases may require short total anaesthesia to enable the cone to be introduced into the vagina. We followed this practice in a number of cases, to irradiate relapsing growths on the vaginal cupola following hysterectomy.

In 1959 we applied this treatment to a 4-month pregnant woman, 44, suffering from cervical carcinoma at its first stage (hystological test: remarkably infiltrating squamous carcinoma). We applied 5,000 R over 24 days, performed a second biopsy and detected no neoplasia traces.

On the 62nd day from end of irradiation, being at the end of the 8th month of pregnancy, we performed a Caesarean section followed by total enlarged hysterectomy.