Current trend is to preserve pregnancy in patients diagnosed with cervical or ovarian cancer

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The first paper in The *Lancet* Series on cancer in pregnancy explores the issues around gynaecological cancers, with cervical and ovarian being the most common. The current trend is to preserve pregnancy wherever possible. The first paper is by Professor Philippe Morice, Department of Gynecological Surgery, Institut Gustave Roussy, France, and colleagues.

The authors say: "In early-stage cervical cancer during the first and at the beginning of the second trimester, the two main considerations for management of the patient are the tumour size (and stage) and nodal staging...In patients with a small tumour and without nodal spread, an intentional delay (with a careful clinical and radiological follow-up) to postpone treatment of the tumour until fetal maturity and delivery could be discussed."

Up to 1 in 1000 pregnancies is affected by cancer, but this number could rise in high-income countries, since more women are postponing pregnancy until older ages, and age increases the risk of most cancers. Pregnant patients have a similar outcome to non-pregnant women. European recommendations state that pregnancy should be preserved if oncologically safe and feasible.

The authors highlight that management of cervical cancer during pregnancy mainly depends on four criteria: extent of local spread (ie, tumour stage and tumour size, determined clinically and using

radiological imaging), nodal status (determined using radiological imaging and surgical nodal staging feasible until 20-22 weeks gestation), term of pregnancy, and histological subtype. They say: "The management of patients with locally advanced cervical disease is controversial (neoadjuvant chemotherapy with preservation of the pregnancy or chemotherapy and radiotherapy) and should be discussed on a case-by-case basis according to the tumour size, radiological findings, the term of pregnancy, and the patient's wishes."

Deciding the best course of action can be very complex, since in patients with locally advanced cervical cancer (stage II or greater), chemoradiation therapy has probably a better chance to optimise a local control compared to neoadjuvant (pre-surgery) chemotherapy but this chemoradiation is also likely to necessitate terminating the pregnancy. The authors stress the "choice" between these two possible management strategies is extremely difficult.

Different histological types of malignant ovarian diseases arise during pregnancy and their management depends on the diagnosis (histological subtypes, tumour differentiation, and nodal status), the tumour stage, and the term of the pregnancy. In patients with peritoneal spread or high-risk early-stage disease, neoadjuvant chemotherapy with pregnancy preservation could be discussed in selected cases.

While chemotherapy must not be used very early in pregnancy (first 8 weeks) since it causes harm to the fetus, the evidence suggests it can be used in the second or third trimester. The authors say: "The use of chemotherapy during pregnancy helps increase the chances of fetal preservation. Children exposed to chemotherapy in utero after the first trimester do not seem to have more congenital anomalies."

However, the authors stress that such pregnancies carry the risk of premature birth, both natural and induced, with associated low

birthweight. Intense medical assessment is needed during pregnancy and at delivery. Prof Morice adds*: "Data about the effects on the fetus and newborn of exposure to chemotherapy are scarce. Large series are awaited, particularly to evaluate long-terms effect of these treatments."

More information: www.thelancet.com/series/malignancies-in-pregnancy

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