Cancer in pregnancy: a 15-year descriptive analysis of 86 consecutive patients

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INTRODUCTION

The maternal diagnosis of cancer complicates approximately 0,1% of all pregnancies. The most frequently diagnosed malignancies are breast cancer, cervical cancer, lymphoma, ovarian cancer and melanoma. Although chemotherapy can be administered during pregnancy, its effects on obstetric and neonatal outcome are still largely unknown. The aim of this study is to describe the oncologic management as well as the obstetric and perinatal outcomes in a consecutive series of patients with cancer during pregnancy

METHODS

We provided descriptive oncologic, obstetric and neonatal data from a cohort of pregnant patients diagnosed with primary invasive cancer between August 2004 and August 2019, retrospectively collected from clinical databases of IRCCS Policlinico di Milano and Istituto Europeo Di Oncologia (Milan, Italy).

DISCUSSION

We observed 86 consecutive patients with a diagnosis of malignancy during pregnancy: breast cancer was the most common type (74,4%), followed by lymphomas (10,4%). Patients with ongoing or missing oncological, obstetrical or neonatal data were excluded. Of the 62 eligible patients, 14% received surgical treatment, 32% chemotherapy and 50% a combination of both. For almost all pregnancies, timing of delivery was previously planned: 38% with labour inductions and 54% with elective caesarean sections, at a mean gestational age of 36 weeks. All pregnancies ended in a livebirth. Half of deliveries were preterm, mainly iatrogenic due to obstetric or oncologic indications: 3.2% were very low preterm, 6,4% moderate preterm and 45% late preterm.

The frequency of small for gestational age (birthweight < 10° percentile) was 14,5%: in 8 out of 9 cases, mothers were treated with chemotherapy during pregnancy.

CONCLUSIONS

This study confirms a higher overall frequency of premature birth and a higher rate of small for gestational age compared with general population. In order to have a better assessment of the toxicity of chemotherapy during pregnancy, we are currently investigating its foetal sequelae through histologic analysis of placental tissue and paediatric follow-up.

Cancer types in pregnancy (N=86)	
Breast cancer	64 (74,4%)
Lymphoma	9 (10,4%)
Lung cancer	3 (3,4%)
Cervical cancer	2 (2,3%)
Ovarian cancer	2 (2,3%)
Thyroid cancer	2 (2,3%)
Others	4 (4,6%)

Patients characteristics	
Age at diagnosis	Mean 35 years (Range 25-43)
Gestational age at diagnosis	Mean 17 weeks (Range 3-37)
Treatment in pregnancy	
Chemotherapy	20/62 patients
Surgery	9/62 patients
Chemotherapy and Surgery	31/62 patients
No treatment	2/62 patients

Obstetrical Outcomes	
Gestational age at delivery	Mean 36 weeks (Range 27- 40)
<34 weeks	5/62
34-37 weeks	28/62
>37 weeks	27/62
Missing data	2/62
Mode of delivery	
Vaginal birth	17/62
Caesarean section	43/62
Missing data	2/62
Birth weight	
<5° percentile	4/62
5°- 10° percentile	5/62
10°- 50° percentile	29/62
50°- 90° percentile	16/62
> 90° percentile	2/62
Missing data	6/62

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