

Table 1. Fertility preservation in women with peritoneal surface malignancies treated with CRS and HIPEC: literature review

Study, year	N. cases	Age (years)	Diagnosis	Intervention on the uterus and ovaries	Stored material	Pregnancy with stored material
Laskov <i>et al.</i> , 2012	1	33	Pseudomyxoma peritonei	Bilateral ovariectomy	18 embryos with donor sperm	One live birth
Courbiere <i>et al.</i> , 2013	1	na	Mesothelioma	Not reproted	Embryos but number not reproted	Not used
Al-Safi <i>et al.</i> , 2014	1	25	Benign mesothelioma	Peritoneal stripping of the ovaries	7 oocytes	Not used
Baron <i>et al.</i> , 2020	1	31	Appendiceal mucinous neoplasm	Bilateral ovariectomy + hysterectomy	4 embryos	One live birth with surrogacy
Present study	5	22-30	Mesothelioma (3), pseudomyxoma peritonei (1), colon adenocarcinoma (1)	Bilateral adnexectomy	4-22 oocytes	Not used

na: not available

Table 2. Main characteristics of the included women

Characteristics	Case 1	Case 2	Case 3	Case 4	Case 5
Age (years)	22	26	30	25	29
Previous children	No	No	No	No	No
Diagnosis	Malignant mesothelioma	Malignant mesothelioma	Benign mesothelioma	Pseudomyxoma peritonei	Colon adenocarcinoma
AMH (ng/ml)	1.2	1.8	2.2	2.3	1.5
N. of oocytes retrievals	1	1	3	2	1
Total N. of frozen oocytes	9	4	18	22	20
Adnectomy	Bilateral	Bilateral	Bilateral	Bilateral	Bilateral
PCI score ^a	14	23	21	19	7
CCR score ^b	1	1	0	0	0
Uterus	Spared	Spared	Spared	Spared	Spared
HIPEC	Yes ^c	Yes ^c	Yes ^c	Yes ^d	Yes ^d
Time delays					
Between diagnosis and first retrieval	7 weeks	17 weeks	7 weeks	2 weeks	16 weeks
Between last retrieval and surgery	2 weeks	1 week	13 weeks	4 weeks	2 weeks
Between diagnosis and surgery	9 weeks	18 weeks	30 weeks ^e	12 weeks	18 weeks
Duration of follow-up	54 months	38 months	19 months	6 months	6 months

AMH: Anti-mullerian hormone. HIPEC: hyperthermic intraperitoneal chemotherapy

Case 5 previously underwent emicolectomy and adjuvant chemotherapy for colon adenocarcinoma at age 22. All the other cases were newly diagnoses.

^a PCI rates lesion size from 0 to 3 (no tumour; ≤ 5 mm; > 5 and 50 mm; > 50 mm) in 13 abdominal-pelvic regions, resulting in a numeric score (PCI 0 to 39). Completeness of cytoreduction (CCR) was classified as CCR-0: macroscopically complete; CCR-1: nearly complete (residual disease 2.5 mm in any region); or CCR-2: suboptimal (residual disease >2.5 mm) [11]

^b CCR: Completeness of cytoreduction was classified as CCR-0: macroscopically complete; CCR-1: nearly complete (residual disease 2.5 mm in any region); or CCR-2: suboptimal (residual disease >2.5 mm) [11].

^c 150 mg cisplatin and 60 mg doxorubicin at 42.5°C for 90 minutes. ^d 60 mg mytomicin-C at 42.5°C for 90 minutes

^e The time between diagnosis and surgery does not correspond to the sum of the previous two because, in these two cases, women underwent more than one oocytes retrieval. The significant delay observed for case 2, 3 and 5 was mainly due to personal reasons and/or to the surgical waiting list.