Cesarian scar pregnancy management: a single center experience

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01 Introduction

Cesarean scar pregnancy (CSP) refers to the abnormal implantation of the gestational sac in the scar or niche of a previous cesarean section. There are several possible therapeutic approaches, but there is no consensus which one is the most effective.

02 Objective

The study aims to describe the pregnancy characteristics, treatments, associated complications, and outcomes. Data were obtained through consultation of the electronic medical records (Obscare®, Sclínico®, and Astraia®).

03 Methodology

Descriptive, observational and retrospective study of cases of CSP diagnosed from january 2017 to april 2023 at Centro Hospitalar Universitário São João.

04 Results

Table 1. Cases of CSP between the year of the 2017 and 2022.

Year	2017	2018	2019	2020	2021	2022	2023
Cesarean scar pregnancy diagnosis (N)	4	2	0	1	0	2	1

Table 2. Demographic data and characteristics of pregnancy.

Case	Age (y)	BMI (Kg/m²)	CS (N)	CS indication	IGP (m)	Previous uterine surgery	Symptoms	Amenorrhea (w+d)	GS size (mm)	Embryo	CRL	FC	V	inicial hCG (mUI/mL)
1	37	29,1	1	fetal distress	15	0	bleeding; pain	9+0	51x40	X	NA	X	✓	428
2	39	21,7	1	unknown	96	0	PHV	6+6	34x23x33	X	NA	X	✓	2859
3	43	26,2	2	prolonged labor; unknown	110	0	Ø	8+3	22x10x13	X	NA	X	✓	9116
4	31	28,7	1	unknown	unknown	0	Ø	5+0	22x10x13	✓	3,8	✓	✓	19339
5	32	23,3	1	prolonged labor	72	0	pain	10+0	52x42x56	X	NA	X	✓	2375
6	37	21,5	1	fetal distress	52	0	Ø	7+4	15x12x13	✓	5	X	X	42649
7	31	24,2	2	unknown	unknown	0	Ø	7+1	37x37	✓	10	✓	✓	41235
8	32	26,1	2	unknown	36	0	bleeding	8+2	8,1	✓	20	✓	✓	47231
9	35	19,1	1	fetal malpresentation	72	C	Ø	5+6	17,5x5,2x8	✓	2,7	✓	✓	3191
10	42	31,2	3	induction failure; previous CS (2)	13	0	bleeding	6+1	30x38x46	X	NA	X	✓	75686

BMI, body mass index; C, curettage; CS, C-section; CRL, crown-rump length (mm); d, days; IGP, intergenesic period; FC, fetal cardiac activity; GS, gestational sac; hCG, human chorionic gonadotrofin; m, months; NA, not applicable; w, weeks; y, years; V, vascularization; Ø, Asymptomatic.

Graph 1. Evolution of HCG in time.

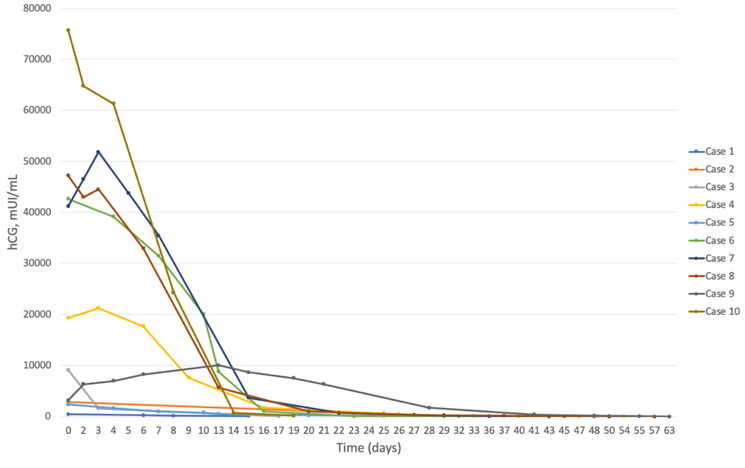

Table 3. Treatments, complications andsubsequente pregnancys.

Case	Inicial Tx	Adicional Tx	Complications	Delay (d)		Admission (d)	Final hCG		Uterine mass		Subsequent pregnancy	IGP (m)
				Dx	Tx		(mUI/mL)	T (d)	(mm)	T (d)		
1	expectant	0	0	0	0	2	105*	15	unknown *	*	yes, full term	33
2	vaginal misoprostol [1]	C → MTX S (80mg)	sepsis	19	0	3+4	590,4*	25	absent	148	no	NA
3	MTX S (90 mg)	0	0	0	1	5	60*	17	unknown *	*	no	NA
4	MTX L (85 mg)	0	0	0	3	3	7,2	54	present 3x3mm	71	yes, non viable	10
											yes, full term	48
5	vaginal misoprostol[1]	C → MTX S (90 mg) → urgent laparotomy with wedge resection	bleeding with transfusion (4U RBC)	13	1	9	5,2	32	absent**	48	yes, full term	24
6	MTX L (85mg)	C	bleeding with transfusion (3U RBC)	0	1	3+4	<1,2	48	unknown*	*	yes, full term	22
7	MTX S+L (90 + 70 mg)	0	0	0	0	8	<1,2	50	present 25x25mm	50	no	NA
8	MTX 50% S +50% L (90 mg)	0	0	0	6	3	<1,2	57	absent	106	no	NA
9	expectant	MTX 50% S + 50% L (80 mg) → second administration of MTX → Laparoscopy with resection of the sac and niche	bleeding; pain	4	3	11	<1,2	63	absent**	55	no	NA
10	laparoscopy with resection of the sac and niche	MTX S (25 mg)+ L (50 mg) [1]	0	0	0	5	187	19	absent**	9	no	NA

C, curettage; d, days; Dx, diagnosis; IGP, intergenesic period; L, local/intrasac; m, months; MTX, Methotrexate; NA, not applicable; S, systemic; U, units; RBC, red blood cells units; T, time; Tx, treatment. [1] administration before surgical treatment to reduce vascularization; * Loss of follow-up; ** After surgical treatment;

05 Limitations

- Small number of cases;
- Lack of uniformity in therapeutic modalities;
- Lack of adherence/loss of follow up;
- Incorrect initial diagnosis (for example, non-viable intrauterine pregnancy).

06 Conclusion

There is a lack of uniformity in the diagnosis and management of CSP, highlighting the importance of an expert team to establish diagnostic and therapeutic protocols. Treatment decisions should be individualized based on the woman's preferences after discussing the potential risks and implications. It is necessary to provide comprehensive counseling and follow-up to ensure appropriate management and monitoring of the condition.