

Incidence of Intra Uterine Adhesion by Relook Hysteroscopy After Hysteroscopic Removal of Uterine SeptumPriyanka Beniwal¹, Farendra Bhardwaj², Kalpana Tiwari³¹Resident Doctor, Department of Obstetrics and Gynaecology, Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan²Professor, Department of Obstetrics and Gynaecology, Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan³Professor, Department of Obstetrics and Gynaecology, Mahatma Gandhi Medical College and Hospital, Jaipur, Rajasthan

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Conflict of interest: Nil

Abstract:

The purpose of this study is to find the and the morphology of the septum after the hysteroscopic resection of the uterine septum. The study was conducted on the candidates undergoing hysteroscopic septolysis. After 2 months intrauterine adhesion and the residual septum was evaluated in the intra uterine cavity during second look hysteroscopy. Additionally, the relation between the septal morphology and the severity of adhesion and the residual septum was also analysed. As per the data it was observed that there is no considerable correlation was found between the length and width of septum and the intrauterine adhesion and their severity. However a significant correlation was found between the length of septum and the residual septum but no considerable correlation was found between the width of septum and the residual septum.

Keywords: Intrauterine Adhesions (IUA), Hysteroscopic Septolysis.

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Introduction

Intrauterine adhesions (IUA) is a sticky processes. IUA manifest as dense or filmy adhesion bands with clear or irregular margins, depending on the predominant component.[1] They can be partial or complete, which results in reduced volume and deformation and, in the long run, may cause a complete obliteration of the cavity. When IUA develops, it is categorised as primary, and when it returns to the same places after adhesiolysis, it is categorised as secondary.[2-3]

They are commonly found in candidates who have previously undergone process involving the use of gynaecological equipment for both therapeutic and diagnostic purposes, or who have experienced an intra cavity trauma that caused the endometrium and its basal membrane to scar, causing the surfaces of opposing uterine walls to approximate and then fuse [4-5].

The uterine septum was measured for length and width before being cut out with hysteroscopy scissors and replaced with a normal saline solution. Septa that stretched from one ostium to another were once thought to be wide. In order to gauge the septal length, the hysteroscope was graded from its tip. Septa with a length of less than 2 cm and individuals greater than 2 cm were taken into

consideration as short and long, respectively, based on the usual lengths of the uterus, the cervical length, and the uterus cavity [6-7].

Materials and Methods

The study was carried out at Mahatma Gandhi hospital on the patients admitted for septum resection. A questionnaire consent form was provider to all the candidates who are willing to participate in the study. This consent was well described to the patients before initiating the study. After 2 months, the patients were instructed to come back for a second-look hysteroscopy to assess the follicular phase. Patients who were no longer returning to the clinic for repeat hysteroscopies were excluded from the study. Cases that included residual septa and IUAs, as well as the severity of each, were assessed during the second look hysteroscopy. Based on the hysteroscopic findings, the severity of the adhesion was evaluated. Prior to hysteroscopy, diagnostic laparoscopy was carried out to accurately differentiate a septate uterus from a bicornate uterus or other potential defects. Laparoscopy was also used to conduct hysteroscopic septolysis in order to lower the risk of uterine perforation during surgical procedure.

Excluding Criteria

- Any further uterine deformities discovered during laparoscopy, such as a bicornate or didelphys uterus
- The presence of a uterine septum and a polyp or submucosal myoma or Asherman's

syndrome at the same time when performing a laparoscopy.

To compare the quantitative data in two or more sets of qualitative variables, Fisher's exact test was adopted. At $P < 0.05$, the significance level was chosen.

Table 1: Adhesion severity according to hysteroscopic evidence

Classification	Condition
mild	Filmy adhesions composed of basalis endometrial tissue causing partial uterine cavity occlusion.
moderate	Characteristically thick and still covered with endometrium that may bleed upon division, partially or totally occluding the uterine cavity
severe	Adhesions only composed of the connective tissue, lacking any endometrial lining and not likely to bleed upon division. These adhesions may partially or totally occlude the uterine cavity.

Result

In general, 30 patients were entered within the study. The patients' mean age becomes 20.80 ± 4.20 years. The demographic data of the patients including age, Symptom, previous pregnancy outcomes, and the length and width of the septum are presented in table 2 and Figure 1 & 2. Based on the result 63.5 percent cases were below the age of 35 years while only 6.5 percent cases were of more than 45 years. As per the pregnancy history of the patients it was observed that the 61 percent cases were suffered with the Primary infertility, 9 percent cases with the Secondary infertility, 24.4 percent cases with the recurrent abortion and 5.6 percent cases were suffered from fatal death. In the candidates, after 2 months of the initial surgery, occurrence of intra uterine adhesion was studied using hysteroscopic process (Table 3 and Figure 3). As per the study it was found that out of the 30 patients only in the 8 percent cases adhesion were found. After the analysis using hysteroscopic method a relationship between Septum length/width and the intrauterine adhesion was tried to correlate (Table 4). As per the study no

considerable correlation was found between the length of septum and the intrauterine adhesion as the observed p value was 0.266, which was insignificant. Similarly, no correlation was found between the width of septum and the intrauterine adhesion as the observed p value was 0.153. In the study, a relationship between the severity of intrauterine adhesion and the length/width of the septum was tried to correlate (Table 5). As per the data there is no considerable correlation was found between the length/width of septum and the intrauterine adhesion as the observed p value were 0.223 and 0.126.

After the analysis using hysteroscopic method a relationship between Septum length/width and the Residual septum was tried to correlate (Table 6). As per the data there is significant correlation was found between the length of septum and the residual septum as the observed p value was 0.019 which indicate the chances of the residual septum is higher in long septa. However, there is no considerable correlation was found between the width of septum and the residual septum as the observed p value were 0.088.

Table 2: Demographic data and Morphological Prevalence of uterine septum

Parameter	Criteria	Number (%)	Total
Age	<35 yrs	19(63.5)	30
	35-45 yrs	9(30)	
	>45 years	2(6.5)	
Symptom	Primary infertility	18(61)	30
	Secondary infertility	3(9)	
	Recurrent abortion	7(24.4)	
	Fetal death	2(5.6)	
Septum length	Long	21(70.5)	30
	Short	9(29.5)	
Septum width	Wide	27(90)	30
	Narrow	3(10)	

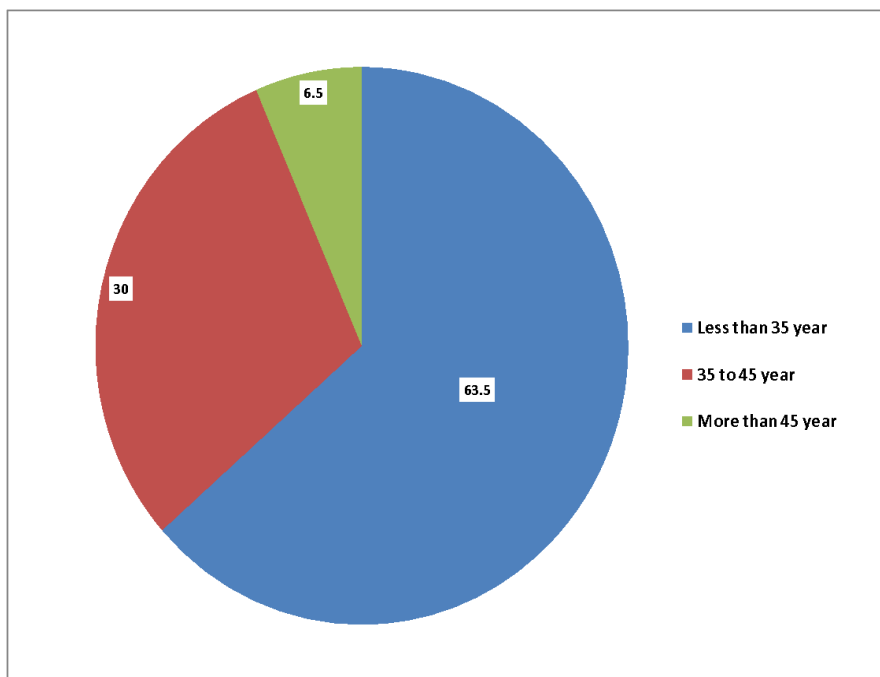


Figure 1: Age of the Candidates

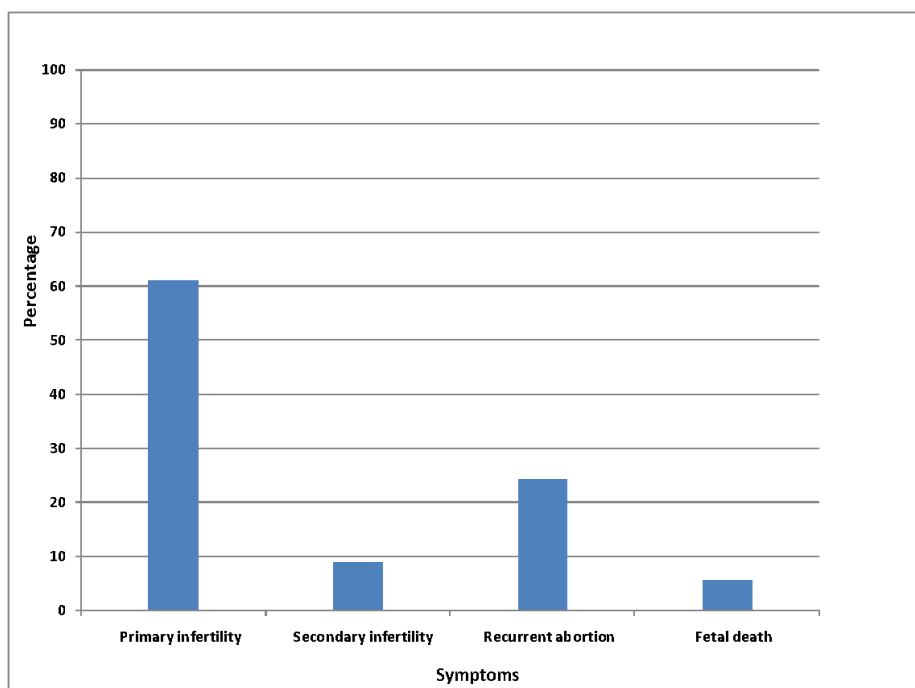


Figure 2: Symptoms of the Candidates

Table 3: The Frequency of IUA incidence after hysteroscopic septoplasty (n=30)

Adhesion Rate	No.(%)
Without adhesion	28(92)
With adhesion	2(8)

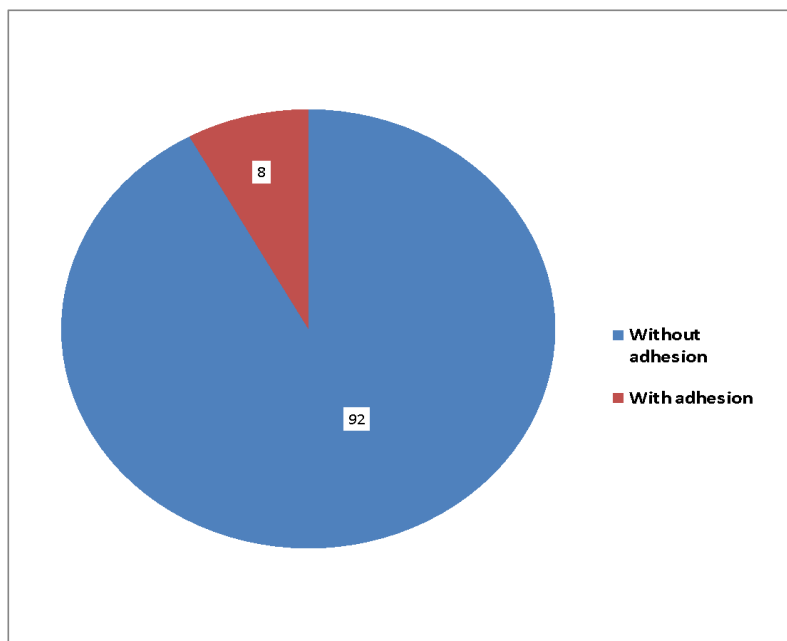


Figure 3: Frequency of IUA in the Candidates

Table 4: The correlation between septum length and width with IUA incidence After hysteroscopic septoplasty

Parameter		Adhesion, No.(%)		P Value*
		No	Yes	
Septum length	Long	14(73.7)	5(26.3)	0.266
	short	10(90.9)	1(9.1)	
Septum width	Wide	19(73.1)	7(26.9)	0.153
	narrow	4(100)	0(0)	

Table 5: The correlation between septal length and width with IUA severity After hysteroscopic septoplasty

Parameter		Adhesion severity, No.(%)				P Value
		No	Mild	Moderate	Total, no(%)	
Septum length	Long	16(72.7)	5(22.7)	1(4.5)	30(100)	0.223
	Short	7(87.5)	0(0)	1(12.5)		
Septum width	Wide	19(73.1)	5(19.2)	2(7.7)	30(100)	0.126
	narrow	4(100)	0(0)	0(0)		

Table 6: The correlation between septal length and width with Residual septum after hysteroscopic septoplasty

Parameter		Residual septum		Total, No. (%)	P Value
		No	Yes		
Septum length	Long	7(31.8)	15(68.2)	30(100)	0.019
	short	6(75.0)	2(25.0)		
Septum width	Wide	13(46.4)	15(53.6)	30(100)	0.088
	narrow	0(0)	2(100)		

Discussion

In this study it was found that out of the 30 candidates 61 percent cases have the history of primary infertility, 9 percent cases have the secondary infertility and 30 percent cases have the history of recurrent abortion or the fetal death. Variability in the statistical data as compared to other studies may be because of the referral system.

Study conducted by the Heinonen [8] stated that the coexistence of decreased fetal survival rate with the SU. In another study conducted by the Hua et al [9] state the coexistence of labor complication with the uterine abnormalities included the breech presentation of the fetus (25%-30%), oblique and transverse presentation (5%), and preterm labor (20%). In our study, large amount of the residual

septum was observed which may be cause of operational discrepancies.

Conclusion

Although the residual septum length in this investigation was never greater than 1 cm, the risk of the residual septum was noticeably higher in lengthy septums. Hence, in individuals with a lengthy uterine septum, second-look hysteroscopy may also be advised following hysteroscopic septolysis. The small study population was major limitations. More research is therefore urgently needed on a broader population of infertile people with uterine septa and a bigger sample of women with SU.

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