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## <u>Title:</u>

Value of 3D ultrasound in the management of suspected Asherman's syndrome.

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### Abstract

### **OBJECTIVE:**

To assess the value of 3-dimensional (3D) ultrasound in the management of patients with suspected Asherman's syndrome.

#### **STUDY DESIGN:**

A case series of 54 infertile patients who presented to a tertiary care center between 1998 and 2004 with suspected Asherman's syndrome underwent both hysterosalpingography and 3D ultrasound prior to hysteroscopy. Sensitivity and the ability to attain fertility postoperatively were calculated.

#### **RESULTS:**

Intrauterine adhesions (IUAs) were demonstrated on 3D ultrasound and HSG in all cases and confirmed by hysteroscopy. However, 3D ultrasound had a sensitivity of 100% and HSG a sensitivity of 66.7% for correctly grading the extent of IUAs. In 61.1% of cases in which HSG results were inconsistent with hysteroscopy, lower uterine segment outflow obstruction was present, and HSG misclassified findings as severe Asherman's with complete cavity obstruction. Postoperatively, 90% of patients conceived.

#### **CONCLUSION:**

3D ultrasound provides a more accurate depiction of adhesions and extent of cavity damage than HSG in patients with suspected Asherman's syndrome, particularly when differentiating severe IUAs from lower uterine segment outflow obstruction. Therefore, grading systems utilizing HSG to classify severity of disease should be revised to include 3D ultrasound findings.