

Introduction

Scar pregnancy is a rare form of ectopic pregnancy. There is no consensus on the treatment modality. Follow up of efficacy of treatment is therefore imperative. Volume Calculation (**VOCAL**) is a 3D-technique which, in combination with Power Doppler, allows measurement of a vascularity index (VI). The vascularity index illustrates the amount of vessels supplying the pregnancy.

Cases

Case1: gestational age of 9 weeks, managed with mifepristone and methotrexate, intramuscular and intra-amniotically. Follow-up: hCG-level + sonography (gestational sac volume and VI). Figure 1 & 3.

Case2: gestational age of 6 weeks, managed with methotrexate, intramuscular and intra-amniotically. Follow-up: hCG-level + sonography (gestational sac volume and VI). Figure 2.

Pictures

When therapy is effective, a decline in hCG levels and sonographic parameters are observed. The figures demonstrate a more rapid decline in VI compared to the decline in gestational sac volume.

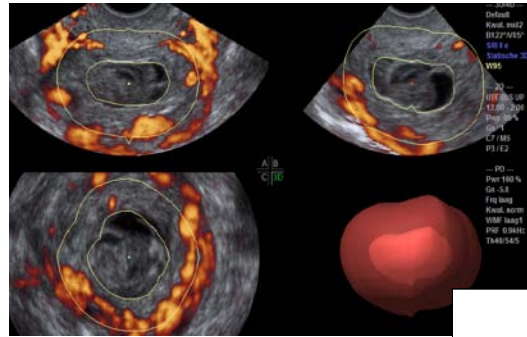
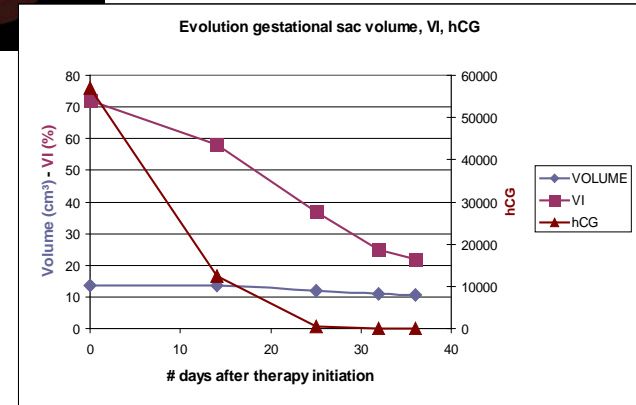


Figure 1: Delineation of gestational sac and perigestational area in three perpendicular planes, case 1

Figure 2: Graph illustrating more rapid decline in VI compared to gestational sac volume, case 2



Discussion

The VI seems to be more accurate than the gestational sac volume in the follow-up of treatment of a scar pregnancy. Since scar pregnancy is rare and management therefore is difficult to optimize, the VI can, in addition to the hCG levels, help evaluate the efficacy of treatment.

Conclusion

The VOCAL-measured Vascularity Index is possibly a useful tool in follow-up of scar pregnancy treatment.