

EP19.12 Ultrasound patterns of pelvic collections in postoperative complications: a descriptive study



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Objectives

To identify specific ultrasound patterns of postoperative pelvic collections following gynecologic laparoscopic surgery, optimizing clinical management.

Methods

A retrospective monocentric study on 97 patients underwent surgery at IRCSS Sacro Cuore Don Calabria Hospital (2023–2024) who developed postoperative complications. Transvaginal and transabdominal ultrasounds were performed by a single experienced operator, analyzing size, margins, echotexture, content, and mobility of collections. Clinical and laboratory data (blood count, inflammatory markers) were correlated to define four main patterns: hemoperitoneum, uroperitoneum, purulent collection, and enteric material.

Results

Hemoperitoneum (40–100 mm) exhibited ground-glass echogenicity (100%), irregular margins (58%), good mobility (77.4%) and hemoglobin reduction (85.2%), Uroperitoneum (40–60 mm) was anechoic (100%) with regular margins (70%) and frequent inflammatory marker elevation (50%). Purulent collections (30–80 mm) had irregular margins (66.3%), heterogeneous echotexture (79.7%), limited mobility (4.2%), and increased inflammatory markers (89%). Enteric material collections (20–60 mm) showed irregular margins (80.4%), heterogeneous echotexture (79.4%) with hyperechoic spots (60.5%), good mobility (70.9%), frequent inflammatory marker elevation (90.6%), and significant hemoglobin reduction (57.1%).

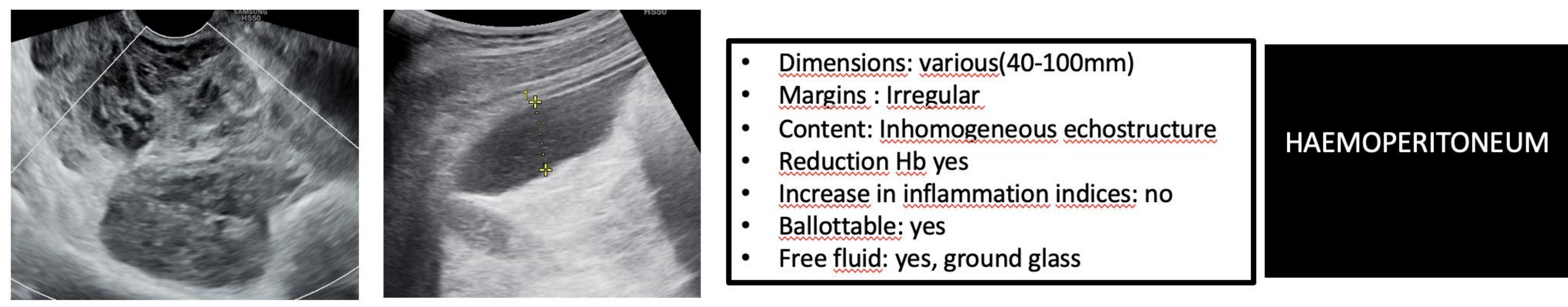


Figure 1. Key sonographic features of hemoperitoneum.

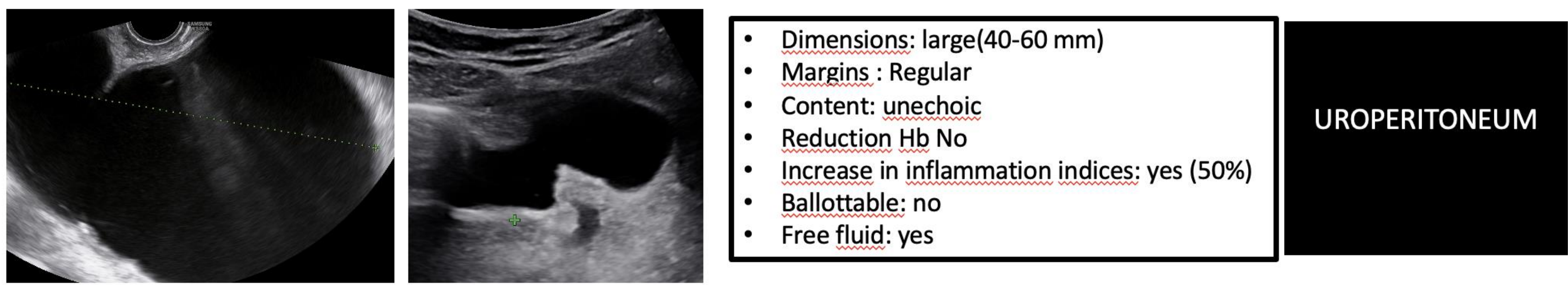


Figure 2. Key sonographic features of uroperitoneum.

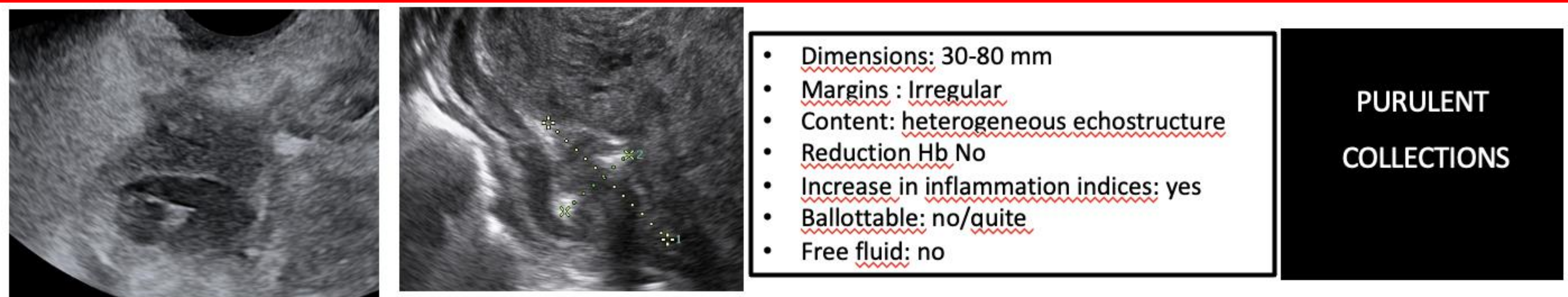


Figure 3. Key sonographic features of purulent collections

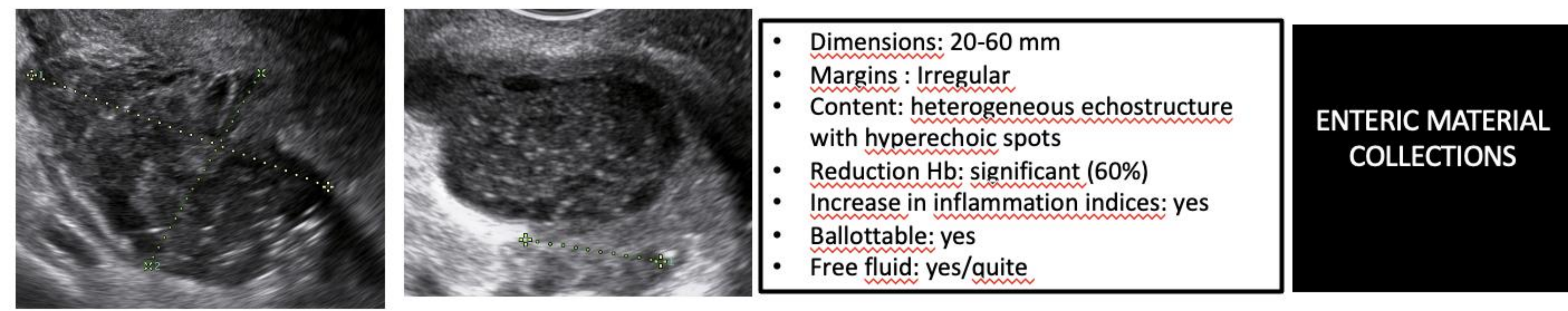


Figure 4. Key sonographic features of enteric material collections.

Conclusions

Recognizing specific ultrasound patterns of postoperative complications is a valuable tool for diagnostic suspicion and treatment selection. This approach is particularly effective when transvaginal and transabdominal ultrasound is performed by experienced operators and integrated with clinical-laboratory parameters, reducing inappropriate diagnostic delays