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Percutaneous VSD Closure by the Nit-Occlud® L₁ VSD Spiral Coil: Early Short-Term Rambam Experience

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Introduction: Percutaneous closure of VSD represents a substantial technical challenge. The experience with the Amplatzer device to close a peri-membranous VSD resulted in high percentage of AV block immediately and late post the procedure due to mechanical effect of the stiff device which made the procedure an acceptable treatment choice in many centers. By modifying the Nit-Occlud® PDA Device the Nit-Occlud® L₁ VSD Spiral System was designed. Coil-based closure being less rigid with lower profile, offers potential advantages. Early experience with this coil resulted in acceptable closure rate of the defect with no heart block

Objectives: In this multicenter clinical investigation, feasibility, safety and performance of the new cardiac occluder will be evaluated. Patients & Method: 14 patients (9F, 5M), Most < 12 Yrs old All had significant Left to Right shunts, 12 Membranous + 2 Muscular VSD's. Follow up: 3.4 ± 1.8 Mo.

Results: in 8 patients the defect was completely closed within 6 months. In 5 patients a small residual shunt. One patient the coil was small and she had surgical closure and eventually. One patient has hemolysis and in one patient a moderate tricuspid regurgitation developed. New Aortic Valve regurgitation was not encountered.

Conclusions: VSD coil occlusion is a promising technique but further follow up and larger numbers of patients are warranted. The learning curve, in the hands of experienced interventionalists, is relatively short. There are numerous pitfalls that need to be recognized and real-time image-guidance is crucial