**Supplementary Figure S1.** A KONAR-MF™ VSD MFO device (Lifetech Scientific, Shenzhen) (A) and the option to mount it for antegrade or retrograde deployment using either micro-screw on both sides (B).

**Supplementary Figure S2.** Flow chart of the systematic review. A comprehensive structured literature search was undergone for articles published until November 27th, 2023 using PubMed (Medline) and Scopus with the keywords “perimembranous AND ventricular septal defect AND (KONAR OR Lifetech)” in the article title, abstract, and/or keywords. All bibliographies of the identified articles were systematically studied for possible additional articles reporting on transcatheter perimembranous ventricular septal defect (pmVSD) closure using the KONAR-MF™ (MFO) device. All relevant data were extracted using a standard form by one reviewer and were verified by a second reviewer. Potential discrepancies were discussed and resolved by consensus when necessary. Eighteen studies were finally included 1-18.

\*All of these included 5 patients or less and no case of atrioventricular block was reported in the abstracts.

1 Godart F et al. J Clin Med. 2023, 2 Haddad et al. Front Cardiovasc Med. 2023, 3 Yildiz et al. Eur Rev Med Pharmacol Sci. 2023, 4 Odemis E et al. Cardiol Young. 2023, 5 Rodriguez et al. REC: Interventional Cardiology. 2023, 6 Alvarez-Fuente et al. RECICE. 2022, 7 Kamali et al. Anatol J Cardiol. 2022, 8 Kuswiyanto et al. Glob Heart. 2022, 9 Sadiq et al. Cardiol Young. 2022, 10 Roy et al. Cardiol Young. 2022, 11 Leong et al. Cardiol Young. 2021, 12 Parvez et al. Ann Pediatr Cardiol. 2021, 13 Gozar et al. Cardiol Young. 2021, 14 Tanidir et al. Int J Cardiol. 2020, 15 Soriano et al. Pediatr Interv Cardiol Res update. 2020, 16 Barbosa et al. Journal of Structural Heart Disease. 2019, 17 Schubert et al. Eurointervention. 2019, 18 Shrestha Catheter Cardiovasc Interv. 2019.

**Supplementary Figure S3.** Chest X-ray images a few hours after device implantation for perimembranous ventricular septal defect closure (A) and, 20 months later, 24 hours after epicardial pacemaker implantation (B). The blue arrows indicate on each chest X-ray the radio-opaque micro-screws of the KONAR-MF™ VSD MFO device (Lifetech Scientific, Shenzhen).

**Supplementary Figure S4.** Long-axis transoesophageal ultrasound 2-dimension view 3 weeks after pacemaker implantation. Note the similar device position as compared with Figure 1C.