**Supplementary Table 2**. Studies excluded after full-text reviewed, with the reasons and the reference.

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| --- | --- | --- |
| Reasons for exclusion | Articles (author, year) | n |
| Case number < 10 | (Tayal et al., 2017) | 1 |
| Combined CABG | (Kobayashi et al., 2016) | 1 |
| Devices other than Medtronic or Edward were used | (Amrane et al., 2014) (Ciuca et al., 2016) (McCarthy et al., 2017) (Anselmi et al., 2018a) | 4 |
| Duplicated cohort | (Abu Saleh et al., 2015; Arai et al., 2016; Bapat et al., 2016; Bapat et al., 2012; Bonaros et al., 2017; Bruschi et al., 2012; Hayashida et al., 2013; Lardizabal et al., 2013) (Blackman et al., 2014; Cioni et al., 2011; Petronio et al., 2012; Petronio et al., 2010; Saia et al., 2013; Schäfer et al., 2012; Taramasso et al., 2011) (Godino et al., 2010; Suri et al., 2015) (Romano et al., 2017) (Bonaros et al., 2018) | 19 |
| No outcome data of TAx or DAo TAVR | (Ahad et al., 2017; Basir et al., 2016; Blackman et al., 2014; Dusse et al., 2016; Herrmann et al., 2016; Kiefer et al., 2015; Kodali et al., 2016; Koh et al., 2015; Patel et al., 2016; Salizzoni et al., 2016; Sannino et al., 2016; Scherner et al., 2015; Thourani et al., 2013; Watanabe et al., 2013; Wenaweser et al., 2014) (Kalra et al., 2016; Kochman et al., 2016; Lange et al., 2011; Pascual et al., 2013) (Gilard et al., 2016; Gotzmann et al., 2013; Iung et al., 2014; Parma et al., 2017; Sherif et al., 2014; Sinning et al., 2012) (Bittar & Castilho, 2017; Dodson et al., 2017; Jarrett et al., 2017; Kawaguchi et al., 2017; Lucchese, Montarello & Bapat, 2017; Mathur et al., 2017) (Alkhalil et al., 2018; Armoiry et al., 2018; Azevedo et al., 2018; Barbanti et al., 2018; Bavishi et al., 2018; Beurtheret et al., 2019; Beve et al., 2019; Campelo-Parada et al., 2018; Chamandi et al., 2018; Chopra, Tong & Yakubov, 2018; Deharo et al., 2018; Elbaz-Greener et al., 2018; Hall et al., 2019; Hellhammer et al., 2018; Porterie et al., 2019; Rogers et al., 2018) | 47 |
| Not using VARC definition | (Bapat, Attia & Thomas, 2012; Clarke et al., 2013; Cocchieri et al., 2016; Henn et al., 2017; Thourani et al., 2015) (Kasapkara et al., 2016; López-Otero et al., 2011; Modine et al., 2011; Modine et al., 2012) (Fröhlich et al., 2015; Reardon et al., 2014) (O'Hair et al., 2018; Stańska et al., 2018) | 13 |
| Includes the valve-in-valve procedure | (Anselmi et al., 2018b) | 1 |

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