**Supplementary Table 1.** Summary of ARSA dimensions systematic review.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Study [Ref]** | **Cases** | **Cadaverdemographics (sex, age, ethnicity)**  | **ARSA Diameter [mm]**  | **ARSA Area [mm2]**  | **ARSA perimeter [mm]**  | **LSA comparison**  | **Origin location** | **Course**  | **Other aortic arch anomalies present** |
| Present study  | 1  | Female, 83, Caucasian  | 3.68  | 8.2  | 10.16  | LSA diameter 15.45 mm,LSA Area 152.5 mm2 | Descending Aorta — T5  | Retro–oesophageal | None  |
| Alghamdi et al., 2020, Saudi Arabia [1]  | 1  | Female, unknown, unspecified  | 16  | – | – | LSA diameter 9 mm  | Aortic arch | Retro-oesophageal | KD |
| Almenar-García et al., 2002, Spain [2]  | 1  | Male, 82, unspecified  | 12  | – | – | NA  | Aortic arch — T3  | Retro-oesophageal | NS  |
| Buffoli et al., 2021, Italy[6]  | 1  | Female, unspecified, Caucasian  | 9.2  | – | – | LSA diameter 6.8 mm  | Aortic arch  | Retro-oesophageal | BCT, ectopic vertebral artery origin  |
| Esumi et al., 2023, Japan [13]  | 1  | Male, 62, Japanese  | 20  | – | – | LSA diameter 10 mm  | Aortic arch — T3  | Retro-oesophageal | NS  |
| Fazan et al., 2003, Brazil [14]  | 1  | Female, 54, Caucasian  | 16  | – | – | LSA diameter 12 mm  | Aortic arch  | Retro-oesophageal | NS  |
| Kaidoh et al., 2011, Japan [20]  | 1  | Female, 75, Japanese  | 8  | – | – | NA  | Aortic arch — T3 (3 cm below the origin of the LSA)  | Retro-oesophageal | KD |
| Makgalwa et al., 2007, South Africa [28]  | 1  | Female, 44, black  | 17.3  | – | – | LSA diameter 13.8 mm  | Aortic arch (3 mm distal to LSA)  | Retro-oesophageal | NS  |
| Mirande et al., 2020, United States [29]  | 2  | Male, 63, Caucasian  | – | 482.7 | – | LSA area 142.3 mm2  | Aortic arch  | Retro-oesophageal | NS  |
| Female, 73, Caucasian  | – | 305.7 | – | LSA area 78.17 mm2  | Aortic arch (posterior surface)  | Retro-oesophageal | NS  |
| Namking et al., 2009, Thailand [31]  | 1  | Female, 80, unspecified  | 15.4  | – | – | LSA diameter 8.7 mm  | Aortic arch (crosses midline at T3)  | Retro-oesophageal | NS  |
| Natsis et al., 2011, Greece [35]  | 2  | Male, 76, Caucasian  | 12  | – | – | NA  | Aortic arch — T4  | Retro-tracheal | BCT  |
| Male, 81, Caucasian  | 16  | – | – | NA  | Aortic arch — T3  | Retro–oesophageal | BCT  |
| Ostrowski et al., 2022, Poland [36]  | 1  | Male, 63, Unspecified  | 12.9  | – | – | LSA diameter 8.3 mm  | Aortic arch | Retro-oesophageal | NS  |
| Peña et al., 2013, Columbia [37]  | 1  | Male, unspecified, Columbian  | – | – | 68  | NA  | Aortic arch | Retro-oesophageal | NS  |
| Qui et al., 2019, China [40]  | 5  | Female, unspecified, unspecified  | 8.42  | – | – | NA  | Aortic arch | Retro-oesophageal | NS  |
| Male, unspecified, unspecified  | 5.87  | – | – | NA  | Aortic arch | Retro-oesophageal | NS  |
| Male, unspecified, unspecified  | 10.31  | – | – | NA  | Aortic arch  | Retro-oesophageal | NS  |
| Male, unspecified, unspecified  | 9.98  | – | – | NA  | Aortic arch | Retro-oesophageal | NS  |
| Male, unspecified, unspecified  | 1.91  | – | – | LSA diameter 1.68  | Aortic arch  | Retro-oesophageal | BCT  |
| Sakuma et al., 2005, Japan [41]  | 1  | Female, unspecified, unspecified  | 17.2  | – | – | LSA diameter 10.7 mm  | Aortic arch — T4  | Retro-oesophageal | KD |
| Sangam et al., 2010, India [42]  | 1  | Male, unspecified, unspecified  | 12  | – | – | LSA diameter 8 mm  | Aortic arch (1.4 cm distal to origin of LSA)  | Retro-oesophageal | BCT  |
| Suriyonplengsaeng et al., 2014, Thailand [44]  | 1  | Male, 81, Thai  | 12  | – | – | NA  | Descending Aorta — T4  | Retro-oesophageal | NS |

ARSA — aberrant right subclavian artery; BCT — bicarotid trunk; KD — Kommerell’s diverticulum; LSA — left subclavian artery; NA — not available; NS — not specified.