

125 single examiner cases of ARSA - additional malformations and chromosomal abnormalities

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Objective: The prenatal diagnosis of aberrant right subclavian artery (ARSA) as possible marker for trisomy 21 was first described 2005 by Chaoui and Heling. Its role and significance in prenatal diagnosis remains to be determined.

Methods: We evaluated 125 cases of ARSA detected by a single operator out of 7773 prenatal scans after 11 weeks of gestation between 11/12/2004 and 3/27/2009. Accompanying softmarker, malformations and chromosomal abnormalities were analyzed.

Results: 125 cases of ARSA were detected between 12 and 36 weeks of gestation. 78 (62 %) cases were isolated, 31 (25 %) cases showed additional softmarker and 16 (13 %) cases had additional malformations.

Karyotyping was performed in 65 cases and revealed a pathological result in 12 cases. The results were 9 cases of trisomy 21, 1 x trisomy 13, 1xtriploidy and one case of del22q11. All cases of chromosomal abnormalities showed additional malformations or softmarker. Especially in cases with a minor softmarker, the detection of ARSA was decisive for the pregnant woman to opt for invasive testing.

Conclusion: Though the risk-modification for trisomy 21 in case of prenatal detection of ARSA remains to be determined due to different figures about the prevalence in trisomy 21, ARSA is associated with chromosomal abnormalities and additional malformations. The prenatal detection of ARSA warrants a thorough search for additional malformations and softmarker and is at least in combination with other softmarker an indication for invasive testing.

ARSA and other softmarker/malformations

	Numbers	%
Isolated	78	62
Other Softmarker	31	25
Malformations	16	13
	125	