**Introduction**

Double aortic arch (DAA) results in cough, stridor, and retractive breathing from infancy, and these respiratory insufficiency symptoms can suddenly worsen on complication with respiratory tract infection. After birth, it becomes difficult to make an echography-based diagnosis of the aorta area, as breathing prevents clear images from being obtained. Therefore, DAA can only be clearly diagnosed during the fetal period. However, it is required the diagnosis of DAA to depict an axial transverse section above three vessel trachea view.

**Case**

We received a request for a heart diagnosis for 2 fetuses (28 and 30 gestational weeks of age) from a partner hospital using a telediagnosis system with spatio-temporal image correlation (STIC). A right-sided aortic arch was suspected in both cases. The diagnosis based on monochromatic STIC data was right aortic arch without intracardiac abnormalities. We then analyzed the STIC data of color imaging from high-definition flow. When we depicted a section more cranial than three vessel trachea view, we found the left aortic arch which surrounded the trachea. DAA was diagnosed based on the above findings. Both cases were treated as outpatients with a DAA diagnosis.

**STIC analysis** (Figure).

First, we obtained a four-chamber view image and collected the STIC data. Next, we transferred the STIC data via a virtual private network line. The transferred data were rebuilt as an image on a personal computer by a View PAL system (GE Healthcare Japan, Tokyo, Japan). In the STIC image display, the cross-section (section A) on the upper left, which is the main part, is a normal B mode tomogram and the cross-section on the upper right (section B) rotates the probe in the A section 90° counterclockwise. At the same time, a cross-sectional image parallel to the base surface is displayed on the lower left section (C section). A cursor is fixed to the descending aorta of the section A, and the cursor is moved from the caudal side of the fetus to the cranial side on the section. The Image of section A shows a cross section from 4CV toward the fetal head.

**Conclusion**

Using STIC, we were able to depict the left aortic arch, which had not been possible using monochromatic imaging with high-definition flow. We think that the width of the diagnosis spreads by putting a color together for telediagnosis using STIC.