Closure of atrial septal defects

Atriyal septal defektlerin kapatılması

Dear Editor,

We read with interest the editorial "Closure of atrial septal defects: The good, the bad and the ugly?`` published in the September issue of the Anadolu Kardiyoloji Dergisi.

Transcatheter closure of secundum type atrial septal defect (ASD) using the Amplatzer Septal Occluder has become an accepted modality for patients with an appropriate ASD. The immediate results are very good and the long-term outcome has been very good too. Professor Olgunturk (1) is reminding us that closure should be carried out in patients who meet indications. We totally agree with her assessment. However, in our opinion, the best way to assess the need for closure is the presence of right heart chamber enlargement as seen by transthoracic echocardiography. Depending on calculation of Qp/Qs ratio is not an accurate method, since this can be influenced by many factors. In our cohort of patients, all had evidence of right heart chamber enlargement, irrespective of their Qp/Qs ratios.

We all agree that surgical closure is indeed safe. However, we all also agree that mortality is not zero%. Furthermore, the trial of comparing device closure with surgical closure, which led to the approval of this device by the United States FDA (2), demonstrated that device closure was indeed safer than open-heart surgical closure. That trial was conducted in reputable cardiac surgical centers in the US and it was recent (1998-2001). The incidence of minor and major complications was much higher in those patients who underwent surgical closure (24% vs 7.2%) than those who underwent device closure.

The issue of cost effectiveness is an important issue that we need to discuss. One can not put a cost on human life and comfort. Nothing worse (in some societies a stigma) than having a child, male or female with a scar in their chest!! The only study in the US that compared cost of device with that of surgery found significant difference favoring more expense to the surgical group (3). One has to take into consideration also the time spent by the family with the patient in the hospital and of course during recovery at home…can we measure the cost of this!

Finally, the long-term outcome of ASD closure: it is clear that both modalities are safe. Device closure for the most part has been very safe. There are very few patients who suffered from device erosion after 1-2 years. The total number of patients who suffered from this dreadful complication is extremely rare (total of 36 patients out of at least 60,000 implants). This rate is much less than any surgical complication rate and only 4 of these patients died (two of them clearly were not related to the device, but of course to the procedure). Thus mortality rate of 4/60,000 is much less than even mortality due to patent ductus arteriosus closure.

In summary, we believe that device closure should be the first option offered for closing any suitable ASD in any child over the weight of 8 kg.

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No conflict of interest is reported

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