Patent Ductus Arteriosus with a Left to Right Shunt in a 64-Year-Old Asymptomatic Male

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Abstract
We report here the unusual case of a 64 year old male, who was incidentally found to have a patent ductus arteriosus (PDA). The patient was asymptomatic. Echocardiography revealed a moderate sized PDA with normal left ventricular function and mild pulmonary hypertension. As the patient was asymptomatic and was not willing for any form of intervention, he was discharged and is currently under close follow-up. To the best of our knowledge this is the oldest reported case of a PDA in Indian literature.

INTRODUCTION
Patent ductus arteriosus (PDA), is a common congenital heart disease (CHD) accounting for about 10-12% of all cases of CHD at birth in the west. Studies in the Indian population have shown a similar incidence. Most patients with PDA become symptomatic within the first to second decade of life. We report here case of a 64 year old male with a moderate sized patent ductus arteriosus as yet asymptomatic with regards to his cardiac condition.

CASE REPORT
A 64 year old Muslim male, an embroidery worker by occupation, with no past medical history, presented to us with the symptoms of an upper respiratory tract infection. The patient was incidentally found to have a precordial thrill and was admitted for further evaluation.

On direct questioning, the patient mentioned that at the age of 5 years, he had been told that he had ‘some cardiac problem’. However, the patient had never experienced exertional dyspnea or chest pain, nor had he ever received any medications for the same. On examination, he was found to be afebrile. His pulse was 92/min regular and bounding in nature. His BP was 170/70 and his breath rate was 20/min. There was no evidence of pallor, icterus, cyanosis or clubbing. The JVP was not raised and there was no pedal edema. Respiratory system examination was normal. Cardiovascular system examination revealed the presence of a continuous machinery murmur (grade 4/6) associated with a palpable thrill, heard best in the 2nd intercostal space, to the left of the sternum. The heart sounds were normal. The routine blood investigations were normal. The chest roentgenogram revealed cardiomegaly. The ECG was suggestive of left ventricular hypertrophy. The echocardiogram revealed the presence of a moderate sized (4-5 mm) patent ductus arteriosus, with left atrial and left ventricular dilatation. The pulmonary artery peak systolic pressure was 60 mm Hg suggestive of mild pulmonary hypertension. The flow in the PDA was from left to right. The left ventricular function was normal, with a LV ejection fraction of 72%.

The patient was treated with a short course of antibiotics for the upper respiratory tract infection. Since the patient

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was symptom-free, had no clinical evidence of overt heart failure and was not willing for any further intervention, he was discharged and continues to be in close follow-up.

Thus, we have a 64-year-old male, with a sedentary lifestyle, who was incidentally found to have a moderate sized patent ductus arteriosus. The patient had remained asymptomatic with regards to his cardiovascular condition for 64 years of his life.

DISCUSSION

Uncomplicated patent ductus arteriosus is usually considered to be a disease of the young. It has been suggested that life expectancy is cut to one-half its normal value in patients with patent ductus arteriosus who reach the age of 17 without correction of the defect. Adults with PDA have an overall mortality estimated to be 1.8% per year. Nevertheless, several cases have been described citing the existence of this disease in elderly persons. Most of these case reports are from the west, the earliest reports dating back to the 1950s. We have extensively reviewed the literature and found this to be the oldest reported case of an uncomplicated PDA from India.

Most of the cases reported so far, refer to asymptomatic individuals with either very small (1-2 mm) defects or to individuals with larger defects who have experienced repeated attacks of congestive cardiac failure. Our patient has a fairly large defect (4-5 mm), but still continues to remain asymptomatic. This may be in part due to his sedentary lifestyle.

There are no guidelines as to when to intervene in adult
patients with PDA. However it has been recommended that correction (surgical or trans-catheter), is best done at the time of diagnosis itself, as it has been found that symptomatic relief is most, when the defect is corrected before the development of significant pulmonary vascular disease.\textsuperscript{3,6} With regards to the mode of therapy, surgical closure of the ductus is best avoided as friability and/or calcification of the ductus; atherosclerosis and aneurysm formation may provide technical challenges. Trans-catheter occlusion has now become an attractive modality for PDA closure in adults with the incidence of residual shunt ranging from 3-38%.\textsuperscript{6} More recently, the Amplatzer Duct Occluder (ADO) has been used for transcatheter occlusion of the PDA, with some centers reporting an almost 100% success rate.\textsuperscript{6}

Our patient had been unwilling for any form of intervention, and has been in close follow-up for the last 8 months, through which period he continues to remain asymptomatic.

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REFERENCES

3. Hong TE, Hellenbrand WE, Hijazi ZM. Transcatheter closure of patent ductus arteriosus in adults using the Amplatzer duct occluder: Initial Results and Follow-up. Indian Heart J 2002;54:384-89.

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Announcement

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