Pseudoaneurysm Following Modified Blalock Taussig Shunt

The modified Blalock-Taussig (BT) shunt is a common palliative procedure for congenital cyanotic heart disease (CHD) with diminished pulmonary blood flow(1). In developing countries, definitive surgery usually gets delayed due to limited resources and expertise(2). Children with cyanotic CHD and BT shunt often present to the pediatrician resulting in some of the complications of BT shunt being misdiagnosed(3,4).

A 1-year-old boy was admitted with cough and fever for 7 days, and breathlessness for 1 day. He was diagnosed to have tetralogy of Fallot at 3 months of age. Echocardiography revealed a normal visceroatrial arrangement (situs solitus) and non-restrictive ventricular septal defect with an overriding aorta. There was infundibular and valvar pulmonary stenosis and a right-sided aortic arch. At 11 months of age a left-sided modified BT shunt was done for frequent cyanotic spells. The present symptoms developed a month after surgery.

On admission, the child was afebrile with heart rate 180/minute, respiratory rate 60/minute with intercostal retractions and blood pressure 94/52 mm Hg. There was a grade 3/6 ejection systolic murmur in the 2nd left intercostal space. Bronchial breathing was heard in the left infraclavicular and axillary areas. The liver was palpable 4 cm and the spleen 2 cm below the costal margin. Hemoglobin was 12 g/dL and total leukocyte count was 13,500/cu.mm (polymorphs 85%, lymphocytes15%). Chest *X*-ray showed an opacity in the left upper zone. Intravenous cefotaxime and amikacin were started for a presumptive diagnosis of pneumonia. Anti-failure management with digoxin and furosemide was initiated. However there was no improvement even after 7 days. A repeat chest *X*-ray showed persistence of the opacity in the left upper lobe, hence shunt- related pathology was suspected. High-resolution computed tomography scan of the chest showed regression of the distal end of the BT shunt from the left pulmonary artery with a large hematoma in the left upper lobe causing atelectesis of the underlying lung parenchyma with a shifting of mediastinum to the right. There was aneurysmal dilatation of the left subclavian artery with a large crescentric thrombus (***Fig.*1**). The child was taken up for surgical resection of the pseudoaneurysm. Intraoperatively, the shunt was found to be completely occluded and the distal end of the graft had partially dehisced from the anastomotic site. There was aneurysmal dilatation of the left subclavian artery with a large crescentric thrombus. However the patient did not survive the procedure.

Common complications of BT shunt include shunt stenosis and occlusion, nerve damage at the time of operation, excessive pulmonary blood flow, serous fluid leak and false aneurysm(3). A pseudoaneurysm after a modified BT shunt may cause rupture or compression of mediastinal structures, collapse of underlying lung parenchyma, and shunt occlusion and bacteraemia. The appearance of a localized mass on the chest film surrounding the BT shunt requires the exclusion of hematoma, aneurysm, or inflammation(5). Such patients may be misdiagnosed and treated as pneumonia.

Through this case we wish to highlight that shunt-related pathology should be kept in mind when dealing with children with a BT shunt.

ACKNOWLEDGMENT

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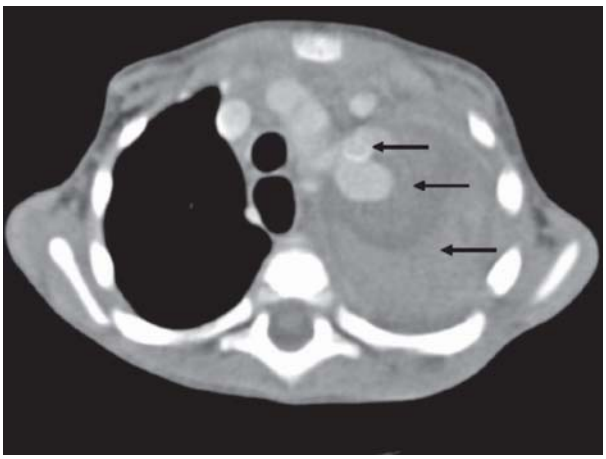

FIG.1 *High-resolution computerized tomography scans of chest showing from above below: Pseudoaneurysm of the BT shunt (first arrow) with hematoma around the shunt (second arrow) causing atelactasis of the underlying lung (third arrow).*

Mauskar for permitting to publish and patient management, respectively.

Syed Ahmed Zaki and
Preeti Shanbag,
Department of Pediatrics,
Lokmanya Tilak Municipal General Hospital,
Sion, Mumbai, India.
drzakisyed@gmail.com

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Cross System Practice and Prescription

Bonnisan liquid and Liv-52 preparations are being prescribed by some doctors. Can practitioners of modern medicine i.e. allopathic practitioners prescribe ayurvedic medicines? I seek clarification from the medico legal cell of IAP on this issue.

Yash Paul
A-D-7, Devi Marg, Bani Park,
Jaipur 302 016, India.
dryashpaul2003@yahoo.com

Reply

The National Law School Banglore, has interpreted the two judgments of Supreme Court of India on this issue two judgments and came to the conclusion that there is no bar on cross system practice. The apex court has only laid down that every practitioner must discharge "a duty of care" to every patient he accepts to treat and "the practitioner must bring to his task reasonable degree of skill and knowledge, and must exercise a reasonable degree of care." The onus is on practitioner to demonstrate that he has the requisite knowledge and skill to prescribe that medicine and to treat the patient in a particular system.

We know that the modern medicine is usually a peer-reviewed, research oriented and evidence based practice. The same may not be applicable to the other system of traditional Indian medicine or Homeopathy. According to essentials or prerequisites for negligence there must be damage to the patient which should be as a direct result of deficiency in duty or care(1). The Apex Court, in the Poonam Varma v. Ashwin Patel case has ruled that if you are practicing any other system it is *Negligence per se*. The other side of this issue is that in many developing countries where rural health is important and qualified practitioners are not available the authorities are appointing community health workers (CHW)(2). These CHW are provided with some of the common medicines which can be used for domiciliary management of common illnesses. Do they have the deep and complete knowledge of these illnesses or medicines? If an unqualified CHW can prescribe or dispense medicines why a graduate in medical curriculum (traditional or homeopathic) cannot do so? This issue also needs a countrywide medical and legal debate.

Many recent editions of modern medicine books are coming with chapters and some references on traditional medicines(3). This indicates that some