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Aortic Dissection

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Introduction

Aortic dissection occurs in 3 in 100,000 people per year. Tear in the inner side of aorta causes blood to flow between layers of aorta causing separation of media layer into inner two third and outer one third. Dissection can be antegrade or retrograde.

Symptoms

96% of people will have chest pain with varying sevearity with or without radiation. Backpain, vomiting, sweating, headache, blood stained diarroea, paralytic ileus, strokes and death Males are more affected than females. Males will have double incidence as females.

Aetiology

Hypertension in 80% of patients was observed. Connective tissue disorders are also common. Bicuspid Aortic valve is seen in 7 to 14% of patients. 5 to 9% of patients have Marfan syndrome. Along with this atherosclerosis, trauma, post cardiac surgery, smoking, cocaineabusers, pregnancy, aortoarteritis, turners syndrome, high intensity weightlifting, syphilis are the other causes [1-4].

Diagnosis

D dimer more than 500ng/ml rules out Aortic dissection, Transoesophageal echocardiogramhelps in diagnosing the sensitivity is 98% and specificity is 97%. Ultrasound of abdomen, computerized Tomography, Magnetic resonant Angiography will diagnose Aortic dissection, the sensitivity is 98% and specificity is 98%.

This is being classified in to Stanford Type A. Where ascnding and arch of aorta are affected. Stanford Type B. where ascending aorta is spared. It is also classified in De Bakey classification as

Type 1: Dissection originates in ascending aorta.It occurs in patients less than 65 yrs of age.

Type 2: Dissection originates in ascending aorta and extends distally.

Type 3: Dissection occurs in descending aorta and rarely extends. This is commonly seen in patient having Hypertension and Atherosclerosis.

Management

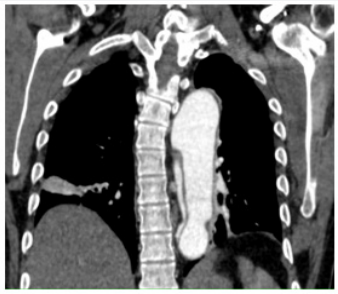

Figure 1: Aortic dissection in descending aorta.

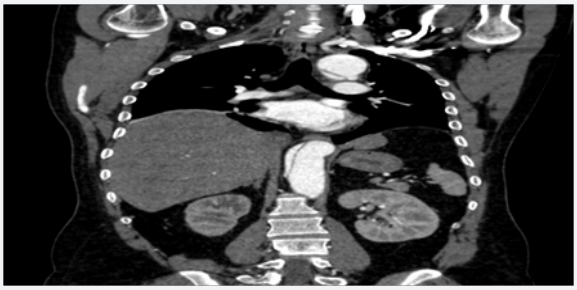

Figure 2: Aortic dissection in descending aorta.

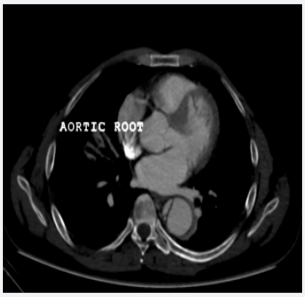

Figure 3: Dissction ao root.

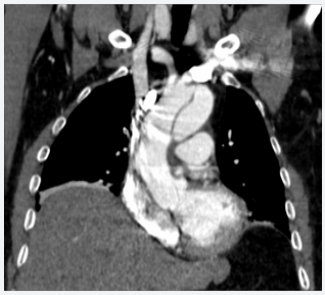

Figure 4: Dissection in ascending aorta and arch of aorta.

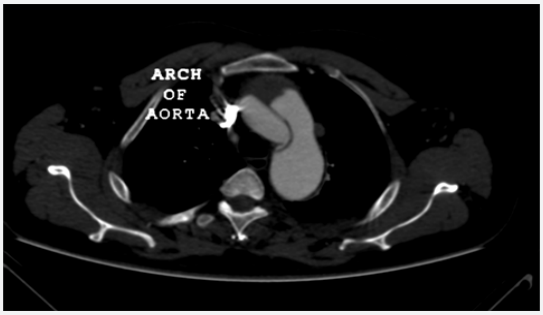

Figure 5: Arch of aorta.

Control Hypertension by either Betablockers, sodium nitroprusside, Calcium channel blocekers like Diltiazem or verapamil, nonpyridin calcium channel blockers. Target mean arterial blood pressure should be 60 to 75mm of hg. Initial decrease should be about 20%. Patient emotional care and reduction in psychological stress is equally important along with medical treatment. Surgical treatment either Endovascular or open surgery may be necessary in acute emergencies (Figure 1-5) [5-7].

Prevention

Tight Bp control, avoid smoking, maintain ideal weight, wear a suit belt, regular medical checkup and control of dyslipidemia is important. Severe hypotension in acute dissection indicates grave prognosis.

References

1. Wojnarski CM, Svensson LG, Roselli EE, Idrees JJ, Lowry AM, et al. (2015) Aortic dissection in patients with bicuspid aortic valve-associated aneurysms. Ann Thorac Surg 100 (5): 1666-1673.
2. Benjamin MM, Roberts WC (2012) Fatal aortic rupture from nonpenetrating chest trauma. Proc (Bayl Univ Med Cent) 25(2): 121-123.
3. Jansen Klomp WW, Brandon Bravo Bruinsma GJ, Peelen LM, Nierich AP, Grandjean JG, et al. (2016) Clinical recognition of acute aortic dissections: Insights from a large single-centre cohort study. Neth Heart J 25(3): 200-206.
4. Wang GX, Hedgire SS, Le TQ, Sonis JD, Yun BJ, et al. (2016) MR angiography can guide ED management of suspected acute aortic dissection. Am J Emerg Med 35(4): 527-530.
5. Jacobs JE, Latson LA, Abbara S, Scott RA, Araoz, et al. (2014) Acute chest pain-suspected aortic dissection. ACR Appropriateness Criteria, American College of Radiology, USA.
6. Chaikof EL, Mutrie C, Kasirajan K, Milner R, Chen EP, et al. (2009) Endovascular repair for diverse pathologies of the thoracic aorta: an initial decade of experience. J Am Coll Surg 208 (5): 802-816.
7. Cooper M, Hicks C, Ratchford EV, Salameh MJ, Malas M (2016) Diagnosis and treatment of uncomplicated type B aortic dissection. Vasc Med 21(6): 547-552.

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