Introduction: Abdominal aortic aneurysms more commonly affect men than women and are estimated to affect 4% to 8% of men older than age 60 years. Mortality because of a ruptured AAA is high, but elective repair is an effective and relatively safe intervention.

Case Presentation: A 69-year-old male patient comes to the outpatient department with a complaint of abdominal pain from 2-3 months back.

Interventions: The treatment of patients was started immediately after admission. The surgical repair of Aortic Stent Placement for Pseudoaneurysm was done under general anesthesia on date 12 June 2021.

Conclusion: In this report, we mainly focus on expert surgical management and excellent nursing care helped in managing the complicated case very nicely. The patient response was positive to conservative and nursing management. The patient was discharged without postoperative complications and satisfactory with recovery.

Keywords: Abdominal aortic aneurysms; aortic stent; pseudoaneurysm; mortality.
potential risk factor for abdominal aortic aneurysms [3]. An arterial aneurysm is a weakening of the artery wall with progressive dilatation to 150 percent or greater of its normal diameter [4]. Abdominal Aortic Aneurysms (AAA), the most prevalent type of artery aneurysm, is clinically relevant when its diameter exceeds 3 cm but in most individuals, the diameter of the normal abdominal aorta is approximately 2.0 cm (range 1.4 to 3.0 cm). Abdominal Aortic Aneurysms are most often encountered inferior to the renal arteries. They can, however, extend beyond the aortic bifurcation and proximally above the celiac trunk. The AAA has been deemed the "most prevalent possibly life-threatening finding" that can be discovered at a chiropractor's office. [5] Male sex, advancing age, tobacco usage, family history, and most likely hypertension are all risk factors for Abdominal Aortic Aneurysm. [6] Here we report a case of 69 years old patient with an abdominal aortic aneurysm.

2. PATIENT AND OBSERVATION

2.1 Patient Information

A 69-years-old male was admitted to Acharya Vinobha Bhave Rural Hospital Wardha, Maharashtra, India on the date 6 June 2021 with complaints of abdominal pain in the last 2-3 months. Now come with a complaint of breathlessness on exertion chest pain from 10 days and another history of illness is patient having hypothyroidism and hypertension since from 1 month, she taking the medication regularly.

2.1 Vital Signs

The vital sign of the patient was temperature 99°F, the pulse rate: 86 beats/min, Respiratory rate: 26 breathe/min and Blood Pressure was 110/70 mm of Hg.

2.2 Diagnostic Assessment

Table 1. Showing investigations of the patient

| Investigation                        | Patient Value          |
|--------------------------------------|------------------------|
| Hemoglobin                           | 11.1 gm/dL             |
| Total RBC Count                      | 4.48 cells/mcL         |
| Total WBC Count                      | 6400 per microliter of blood |
| Haematocrit                          | 34.1%                  |
| Mean Corpuscular Hemoglobin Concentration (MCHC) | 32.6 g/dL    |
| Mean Corpuscular Volume (MCV)        | 76.1. 1fl              |
| Mean Corpuscular Hemoglobin (MCH)    | 24.8 picograms (pg)    |
| Total Platelet Count                 | 2.88 per microliter of blood |
| Monocytes                            | 04                     |
| Granulocytes                         | 75                     |
| Lymphocytes                          | 20                     |
| Red Cell Distribution Width (RDW)    | 17.4                   |
| Eosinophils                          | 01                     |
| Basophils                            | 00                     |

2.3 Therapeutic Intervention

Table 2. Treatment

| Name of Drug | Dose | Route | Frequency | Drug Action |
|--------------|------|-------|-----------|-------------|
| Inj. Taxim   | 1GM  | IV    | BD        | Antibiotic  |
| Inj. Metrogyl| 100ML| IV    | BD        | Antibiotic  |
| Inj. Heparin | 3000IU| IV    | TDS       | Anticoagulant |
| Tab. Ecosprin| 150MG| Oral  | OD        | Antiplatelet |
| Tab. ClopitaI| 75MG | Oral  | OD        | Antiplatelet |
| Tab. Omnacortil | 40MG | Oral  | OD        | Antiallergic |
| Tab. Pan 40  | 40MG | Oral  | OD        | Antacid     |
| Tab. Chymoral forte | 100000AU | Oral  | OD        | Antioxidant |
3. MANAGEMENT

3.1 Surgical Intervention

The surgical repair of Abdominal Aortic Aneurysm: The Aortic Stent Placement for Pseudoaneurysm was done under general anesthesia on date 12 June 2021. The surgical procedure was done with all aseptic precautions and under local anesthesia for left radial artery puncture with radial access set and 5F sheath placed.

3.2 Operation Information

Operation is done on dated 12/06/2021, operation name is Aortic Stent Graft Placement for Pseudoaneurysm with local anesthesia.

3.2.1 Steps of operation

- Under all aseptic precaution and local anesthesia left radial artery punctured with radial access set and 5F sheath placed.
- Marker pigtail 5F was inserted into an ascending thoracic aorta.
- Checked angiogram obtained demonstrating aortic pseudoaneurysm arising from an infrarenal portion of the abdominal aorta.
- Right femoral artery exposed and puncture done with 18G puncture needle, 6F sheath inserted over guidewire.
- 5F cobra catheter inserted over Terumo guidewire up to ascending aorta.
- Terumo guidewire exchanged with lunderquest guidewire.
- Stent graft delivery system endurent II 23 mm x 70 mm and Endurent II 23 x 49 mm advanced over lunderquest wire.
- Position confirmed, stent-graft developed and delivery system.
- Check aortogram obtained showing stent-graft across pseudoaneurysm.
- No endoleak noted.
- Closure and arteriotomy (right common femoral artery) done using Prolene 6-0 suture.
- Drain inserted into the subcutaneous plane and skin closure did use skin stapler.
- The procedure went uneventfull. - patient tolerated the procedure well.

3.3 Nursing Diagnosis

1. Anxiety-related to the Impending surgery/ Multiple tests and procedures

Goal: To reduce anxiety

3.4 Nursing Intervention

- Assess the Patients anxiety level with the help of an anxiety scale.
- Recognize that you are aware of the patient's anxiety.
- Removed the unnecessary external stimuli.
- Provide a calm and quiet environment to the patient.

2. Knowledge deficit related to the unfamiliarity with surgical procedures and hospital care

Goal: To improve knowledge

3.5 Nursing Intervention

- Assess the level of knowledge about his disease condition.
- Encourage the patient to ask queries regarding disease conditions and treatment regime.
- Answer the questions asked by the patient.

3.6 Intervention

- Assess the general condition of the patient.
- Monitor the sign of decreasing signs of cardiac output such as tachycardia, restlessness.
- Assess the hemodynamic status of the patient.
- Monitor ECG changes.
- Administered medications as prescribed by doctors.

4. Ineffective tissue perfusion related to the disease condition

Goal: To maintain adequate tissue perfusion.

3.7 Nursing Intervention

- Assess the general condition of the patient.
- Monitor the level of pain and area of pain.
- Monitor capillary refill time.
- Check and record urine output.

3.8 Nursing Management

The postoperative patient was on a ventilator for one day. For that, the patient was postoperatively
under strict observation of on-duty staff. Intravenous fluid administered as per calculation & Administered medication as prescribed. Observation and reading of the character of the drainage were done postoperatively. Intake and output were maintained 2 hourlies. Vital signs were recorded strictly. Monitor Blood Pressure, central venous pressure and Oxygen Saturation of the patient. Check the proper position of the transducer, check for a surgical site for a sign of bleeding and infection. The overall response to treatment of the patient was positive and patient condition improved progressively.

3.9 Therapeutic Diet Plan

Provide fruits, vegetables & whole grain as well as lean meat in the diet. Restrict/ reduce the salt and cholesterol-containing food intake in the diet.

4. DISCUSSION

This was a case report that is very common in western countries among males above age 65 years prevalence of 4-7%, although the prevalence is decreasing in the last few years. [7,8] In a large number risk of ruptured abdominal aortic aneurysms with high mortality 80% fatal. Abdominal aortic aneurysms must be early-stage identification, follow the treatment and then treat with surgical repair [9].

The true congenital primary aneurysm of the abdominal aorta is an extremely rare condition. Indeed, this case report only the abdominal aortic aneurysms is in an elderly patient [10]. Secondary or acquired aneurysms are in infants and children are more frequently than the primary congenital aneurysm of the abdominal aorta. Staphylococcus is the most common organism since the advent of umbilical artery catheterization in the 1970s. [11,12].

The treatment of an aneurysm of the abdominal aorta in the neonate or young child requires additional consideration concern. 5 to 10 mm graft material (synthetic or allograft) is used to repair infrarenal aortic aneurysms [13,14].

5. CONCLUSION

In recent years, an increasing number of studies on surgical and medical management of abdominal aortic aneurysms have been published. In this case report, the patient was alright some months before but from 2-3 months he was started abdominal pain and he was taken medication from the private clinic but pain reduces for some time only after undergone a thorough investigation of the patient's diagnosis with abdominal aortic aneurysms. This case report contributes to the knowledge giving towards the medical areas to advance care given.

CONSENT

While preparing case reports for publication patient's informed consent has been taken from his guardian.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Atul Mathur, Varun Mohan, Deepak Ameta, Bhardwaj Gaurav, Pradeep Haranahalli J Transl Int Med. 2016;4(1):35–41. Published online 2016 Apr 14. DOI:10.1515/jtim-2016-0008.
2. Calero A, Illig KA. Overview of aortic aneurysm management in the endovascular era. In Seminars in vascular surgery 2016;29(1-2):3-17. WB Saunders.
3. Kobeissi E, Hibino M, Pan H, Aune D. Blood pressure, hypertension and the risk of abdominal aortic aneurysms: a systematic review and meta-analysis of cohort studies. European journal of epidemiology. 2019;34(6):547-55.
4. Chaikof EL, Dalman RL, Eskandari MK, Jackson BM, Lee WA, Mansour MA, Mastracci TM, Mell M, Murad MH, Nguyen LL, Oderich GS. The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm. Journal of vascular surgery. 2018;67(1):2-77.
5. Keisler B, Carter C. Abdominal aortic aneurysm. American family physician. 2015;91(8):538-43.
6. Hadida C, Rajwani M. Abdominal aortic aneurysms: case report. The Journal of the
Canadian Chiropractic Association. 1998;42(4):216.

7. Svensjö S, Björck M, Wanhainen A. Update on screening for abdominal aortic aneurysm: a topical review. European Journal of Vascular and Endovascular Surgery. 2014;48(6):659-67.

8. Kostun ZW, Malik RK. Screening for abdominal aortic aneurysms. Clinical imaging. 2016;40(2):321-4.

9. Gianfagna F, Veronesi G, Bertù L, Tozzi M, Tarallo A, Ferrario MM, Castelli P. Prevalence of abdominal aortic aneurysms and its relation with cardiovascular risk stratification: protocol of the Risk of Cardiovascular diseases and abdominal aortic Aneurysm in Varese (RoCAV) population-based study. BMC cardiovascular disorders. 2016;16(1):1-8.

10. Roques X, Choussat A, Bourdeaux'hui A, Laborde N, Baudet E. Aneurysms of the abdominal aorta in the neonate and infant. Annals of vascular surgery. 1989;3(4):335-40.

11. Mendeloff J, Stallion A, Hutton M, Goldstone J. Aortic aneurysm resulting from umbilical artery catheterization: case report, literature review, and management algorithm. Journal of vascular surgery. 2001;33(2):419-24.

12. Cribari C, Meadors FA, Crawford ES, Coselli JS, Safi HJ, Svensson LG. Thoracoabdominal aortic aneurysm associated with umbilical artery catheterization: case report and review of the literature. Journal of vascular surgery. 1992;16(1):75-86.

13. Carrel A. Results of the transplantation of blood vessels, organs and limbs. Journal of the American Medical Association. 1908;51(20):1662-7.

14. Gross RE, Hurwitt ES, Bill Jr AH, Peirce 2nd EC. Preliminary observations on the use of human arterial grafts in the treatment of certain cardiovascular defects. New England Journal of Medicine. 1948;239(16):578-9.

15. Frame PS, Fryback DG, Patterson C. Screening for abdominal aortic aneurysm in men ages 60 to 80 years: a cost-effectiveness analysis. Annals of internal medicine. 1993;119(5):411-6.

© 2021 Wanjari et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle4.com/review-history/72316