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A Case Report On 8-Years Old Girl With Haemangioma And Atriovenous Malformation

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Abstract:
Introduction:A Haemangioma is a birthmark that appears dark or bright at birth. It can also occurs in the first or second week of life.It appears to be a rubbery lump caused by excess blood vessels in the skin. An abnormal build-up of blood vessels in the skin or internal organs causes a Hemangioma.
Presenting complaints and investigation: As narrated bypatient'smother, her child had a small lesion from birth that gradually increased in size, swelling with pain and inflammation of the surrounding area. The patient had a history of embolization of the right iliac artery and debridement surgerywas done one month ago. There was pus and discharge formation at the local site and that's why child brought toTertiary care hospital Wardha.For further management. All laboratory investigations,MRI (bilateral hip with the pelvis), physical examination, urine test, and history collection were done.
The main diagnosis, therapeutic interventions, and outcomes: The patient was eight years old witha known case of Haemangioma with AV malformation in the right gluteal with embolization& debridement was done in August 2021. She came for treatment beginning on the first day of admission.She was treated withIV fluids, injection Meropenem 1mg thrice a day, injection Amikacin 200mg once a day, injection pantoprazole 15mg once a day, injection Emset 1.5mg if needed, IV fluid 400ml DNS with 4ml injection potassium chloride eight hourly, injection metronidazole 130mg thrice a day, injection ceftriaxone twice a day. In this case report, we discussed the case of Hemangioma with AV malformation and its management and outcome.
Conclusion: Patient respond tosurgical and medical management.

Keywords: Embolization, debridement, venous malformations,Hemangioma.

INTRODUCTION:

A Haemangioma is a benign vascular tumour that develops from blood vessel cell types. The most frequent kind of Hemangioma is an infantile Hemangioma, commonly called a "strawberry mark."[1]It appears on the skin at birth or within the first few weeks of life. Hemangioma can form anywhere on the body, but the most common are the face, scalp, chest, and back. Internalhemangiomas can cause or contribute to other medical problems in rare situations.[3] Beta-blockers are the first-line therapy choice and are highly effective in most instances.
Vascular malformations are also the growth of bloodvessels.They also are non-cancerous.Birthmarks are another name for them. However, it is possible that they will not be noticedfor months or even weeks after delivery. They develop slowly throughout their lives. Arterio-venous malformations are vascular anomalies characterised by abnormal capillary beds that shunt blood from the arterial to the venous systems. Because of the delay in presentation of characteristic signs of the malformation they are often misdiagnosed at birth as other vascular lesions.The most prevalent type of vascular tumour is haemangioma. The majority of vascular malformations are lymphatic, capillary, venous, and arteriovenous malformations.
Hemangioma or vascular malformation is the biological classification for the vast majority of vascular malformations in children and infants.The most common type of tumour in children is an infantile Hemangioma, which affects about 10 per cent of the population. Females are three times as likely as guys to develop them. Multiple births and premature infants with low birth weight are more likely to have this condition.About 1% of patients with AVMs die directly from their condition.

Patient Information:
8-year-oldgirl who was admitted to the paediatric ward at Tertiary care hospital for further surgical treatment.
Primary concerns and symptoms of the patient: She is eight years old, admitted to the paediatric ward in tertiary care rural hospital, Wardhaand diagnosed with hemangioma since birth. The current complaints of her parents are red marks on their child's skin, swelling and inflammation of the site, and pus. The child is a known case of cavernous haemangioma with AV malformation in the right gluteal with Embolization& debridement done in Aug 2021. Now there is pus discharge from local site, and now patient came to our tertiary care hospital for further management, after history collection and physical examination all investigations were doneon Jan2022, her debridement over the right gluteal region surgery was done.
Medical, family and psycho-social history: There was no history of bowel and bladder disturbance. She has been diagnosed with hemangioma since birth. The patient's parents were workers by occupation, and socioeconomically they were not strong. Patient maintain good interpersonal relation with parents, doctors and nurses.
Birth History: Patient born with full-term normal vaginal delivery, at birth patient's weight was 2.5 Kg, patient had received four vaccine; and the patient has taken the vaccines up-to-date.
Relevant past interventions with outcomes: As narrated by the mother, the patient is a known case of cavernousHemangioma with AV malformation in the right gluteal region with embolization and debridement done in August 2021.
Clinical findings: On admission, the physical examination were done.On admission patient was conscious and oriented.Nutritional status was poor, and personal hygiene maintains properly.pulse rate were110 beats per min, respiration were 28 breaths per min, blood pressure was 100/60mmHg, temperature afebrile, height was 132 cm, and weight was 13 kg, BMI 7.46, BSA 0.69. General examination was normal and facial expression was dull. Abdominal examination was soft and non-tender. Pain and discharge were present at the previous surgical site.
Timeline: A child is a known case of cavernous haemangioma with AV malformation in the right gluteal with embolization& debridement done in Aug 2021. There is pus discharge from the local site, and the child was brought to our hospital for further management. Hereafter, an investigation, blood testing, urine test, MRI test done, and dermatologist opinion needed for operation then on Jan 2022, her debridement over the right gluteal region.
Diagnostic assessment: On the basis of the patient's history, physical examination were done and other investigations such as a Complete Blood count. Her haemoglobin level was 7.2gm was decreased, other routing investigation was done.
MRIBilateral Hip with Pelvis: In a known case of hemangioma post embolization of the right internal iliac artery present scan reveals.There is evidence of large ill-defined heterogeneously and intensely enhancing multilobulated mass lesions with transversingVessels involving the skin, subcutaneous, inter, and intramuscular plane- the gluteus Maximus, mediuspyriformis, quadratus femoris, iliotibial tract, in the right gluteal and femoral region, sparing right gluteusminimus. This mass lesion measures approximately 5.1 x 10.7 x 13 cm and appears heterogeneously hyperintense on TZWISTIR iso to hyperintense on T1Wl with no blooming on GRE.The lesion has the following extension: Superiorly. The lesion has reached up to the S3 vertebra.Inferiorly reaching up to the upper 1/3rdof the shaft of the femur. The medially- lesion is reaching up to the intergluteal cleft.
Laterally-The lesion is limited by tensor fascialata.Cutaneous skin in the right gluteal region appears irregular with a focal defect measuring 2.4 x 2 cm.A heterogeneouslyenhancing mass lesion in the rightgluteal and femoral regions withthe above mentionedMRIcharacteristics, extension, and involvement is mostlikely to be a capillaryhemangioma.No challenges during diagnostic evaluation.
Diagnosis: Known Case of Cavernous Haemangioma with Av Malformation in the right gluteal with Embolisation& Debridement done.
Prognosis: This case prognosis was satisfied.
Therapeutic Intervention:
Present case of AV malformation ofhaemangioma wastreated with antibiotics and analgesic medications. That is injection Meropenem 1mg thrice a day, injection amikacin 200mg once a day, injection pantoprazole 15mg once a day, injection Emset 1.5mg if needed, IV fluid400ml DNS with 4ml injection potassium chloride eight hourly, injection metronidazole 130mg thrice a day, injection ceftriaxone twice a day, paracetamol 6ml if needed, is given to the patient by doctors order. Also, blood transfusion weredone.Check vital signs four hourly. Monitor intake and output are charted hourly.
Follow up And Outcome:
Advice the patient to do daily exercise, avoid High cholesterol diet, give a healthy diet, regular check-ups, maintain personal hygiene as well as take proper medication by doctor's order.Patient progress was good. Advice to take complete bed rest.
Intervention adherence and tolerability: Patient tookall prescribed medication regularly, she follows a diet, No intervention adherence. Patient tolerated treatment properly.

Discussion:
A case of8 years old girl was admitted to the paediatrics ward in our hospital with a chief complaints of having a small lesion at birth which was gradually increased in size, swelling, pain and inflammation of the surrounding area. The patient had undergone Embolisation of the right iliac artery one month ago. The patient was hence brought for further managementAfter physical examination and investigation doctor diagnosed this case as a known case of AV malformation of hemangioma. As per the doctor's advice, her debridement over the right gluteal region was done. Now she takes medication regularly, and her outcome is good.
Right ventricular AVM is highly uncommon and can lead to abrupt death. The primary and most prevalent method for detecting ventricular AVM is currently echocardiography, which efficiently reveals its location, diameter, and form. [4] Similarly, multimodal imaging plays an important part in resolving the dilemma of a differential diagnosis while also providing crucial information for the complete excision of the tumour.[5] It was still difficult to diagnose despite the use of echocardiography, CT, or MRI. After all, in the final diagnosis, histology remains the "gold standard." [6-10]
The AVM was once thought to be a benign vascular tumour, with certain cases being referred to as plexiform hemangioma. [7] AVM is a vascular malformation subtype according to this classification. The right ventricular mass in our instance was recognised as an AVM, which is quite uncommon in the restricted hemangioma.[11-15]

Conclusion:
The AV malformation of haemangioma is a common complication of hyper vascular venous malformations. Its severity is an important predictor to out of condition survival, the better moment and the risks to body functions.
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