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Wunderlich Syndrome as a Complication of Antiplatelet Drug Ecospirin: A Rare Case Report

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Abstract: Spontaneous retroperitoneal hematoma is a rare condition that may occur as a result of trauma, surgical intervention and anticoagulant therapy. Rarely hematoma may lead to compression of surrounding structures including the kidney and ureters leading to hydronephrosis and significant derangement of renal functions. Here we report a rare case of Wunderlich syndrome as a complication of antiplatelet drug ecospirin.
Keywords: Retroperitoneal, spontaneous, hydronephrosis, antiplatelet.

INTRODUCTION

Spontaneous retroperitoneal hematoma (SRH) is a rare but serious clinical condition described as bleeding into the retroperitoneal area without associated trauma or surgical manipulation [1]. The remaining cases are associated with haemophilia or anticoagulant therapy [2]. There are only a few documented reports implicating heparin, warfarin, low-molecular-weight heparin or antiplatelet agents as potential causes [3]. Patients with retroperitoneal haemorrhage usually present with abdominal pain, nausea and vomiting, ileus, a tender mass in the abdomen and flank [4]. Diagnosis depends on history, physical examination, laboratory examinations, CT and Angiography [5]. Here we report a rare case of retroperitoneal hematoma compressing the ipsilateral ureter and causing grade-I hydronephrosis in patient on antiplatelet medication ecospirin that resolved spontaneously.

CASE REPORT

65 year old male patient presented to our hospital with chief complaints of pain left flank region since 1 week and awareness of lump left flank region since three days. Pain was insidious in onset, gradually progressive in nature, radiating to back and associated with two episodes of vomiting. Patient was a known case of hypertension for which he was taking regular medication (Atenolol 50mg O.D.).Past history of patient revealed cerebrovascular accident with left hemiparesis 4 months back for which he was taking regular medication (antiplatelet drug Ecospirin 75mg) from local hospital following which his condition gradually improved and his antiplatelet medication was continued since then. On clinical examination a well defined lump with smooth margins was palpable in left lumbar region, not moving with respiration, probably retroperitoneal origin, hard in consistency with bruise present on overlying skin. On investigations haemoglobin was on lower side (8.4 g/dl) for which patient underwent transfusion and Hb improved over a period of 10 days to 12.1 g/dl. On ultrasonography of abdomen complex cystic mass 14 * 7 cm in size with septae in the left lumbar region reaching up to left iliac fossa separate from left kidney with mild hydronephrotic changes was revealed. On FNAC of lump 2ml altered blood with no evidence of malignancy was revealed. Following this patient underwent contrast enhanced MR angiography revealing 19.2*9.6*9.2 cm heterogeneous signal lesion with T2 and STIR hyper intense signals in left side abdominal cavity centred in the retro peritoneum displacing the left kidney superiorly and psoas muscle posteriorly along with compression of left ureter with grade-I hydronephrosis and mild perinephric fat stranding. Renal angiography was normal with no extravasation of contrast in the region of hematoma. Following conservative treatment with i.v fluids and antibiotics in due course of time and withdrawal of ecospirin clinical condition of patient gradually improved with improvement of his haemoglobin levels as mentioned after transfusions, improvement of renal functions (From blood urea-70.9mg/dl, serum creatinine 1.5mg/dl on day of admission to blood urea 55mg/dl and serum creatinine 1.1mg/dl till 5th day) and resolution of the palpable lump that was no longer palpable .After this patient was

discharged under satisfactory condition with no complication and any new lump in follow up period.

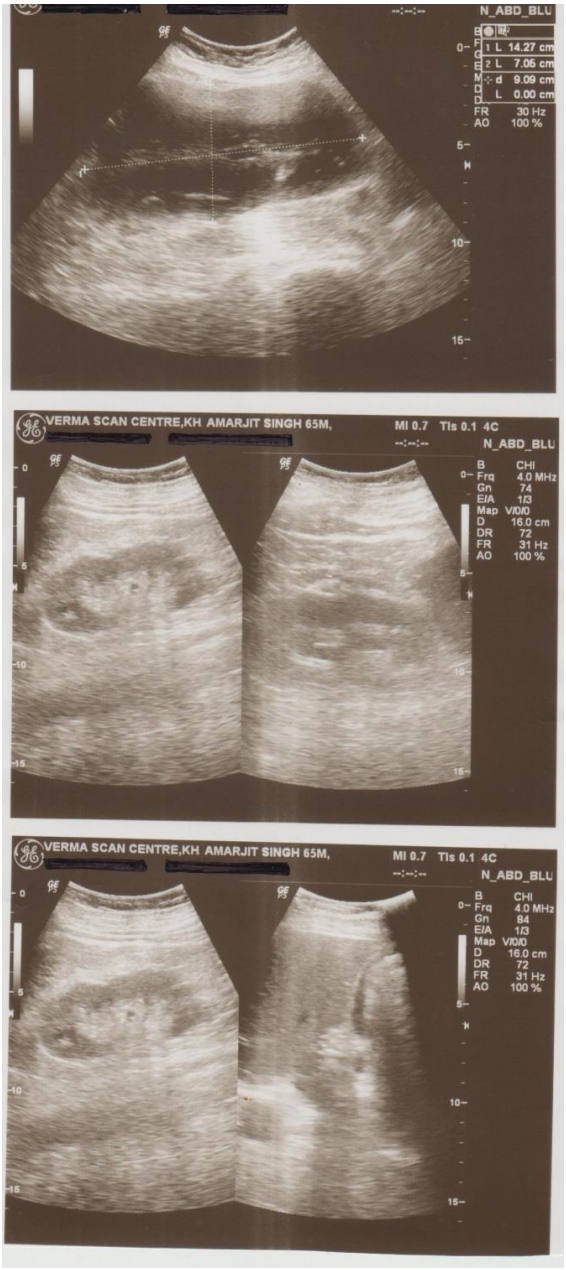
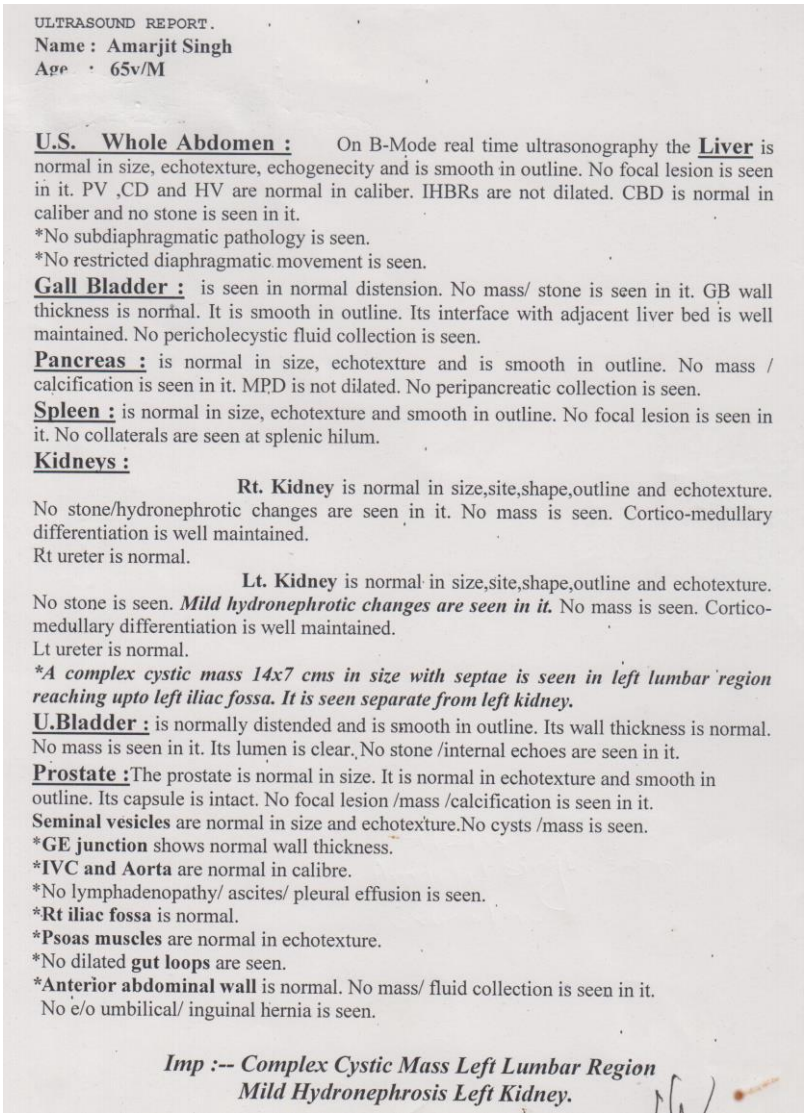


Fig-1: USG abdomen film



ULTRASOUND REPORT.
Name : Amarjit Singh
Age : 65y/M

U.S. Whole Abdomen : On B-Mode real time ultrasonography the **Liver** is normal in size, echotexture, echogenecity and is smooth in outline. No focal lesion is seen in it. PV ,CD and HV are normal in caliber. IHBRs are not dilated. CBD is normal in caliber and no stone is seen in it.
*No subdiaphragmatic pathology is seen.
*No restricted diaphragmatic movement is seen.

Gall Bladder : is seen in normal distension. No mass/ stone is seen in it. GB wall thickness is normal. It is smooth in outline. Its interface with adjacent liver bed is well maintained. No pericholecystic fluid collection is seen.

Pancreas : is normal in size, echotexture and is smooth in outline. No mass / calcification is seen in it. MPD is not dilated. No peripancreatic collection is seen.

Spleen : is normal in size, echotexture and smooth in outline. No focal lesion is seen in it. No collaterals are seen at splenic hilum.

Kidneys :

Rt. Kidney is normal in size,site,shape,outline and echotexture. No stone/hydronephrotic changes are seen in it. No mass is seen. Cortico-medullary differentiation is well maintained.
Rt ureter is normal.

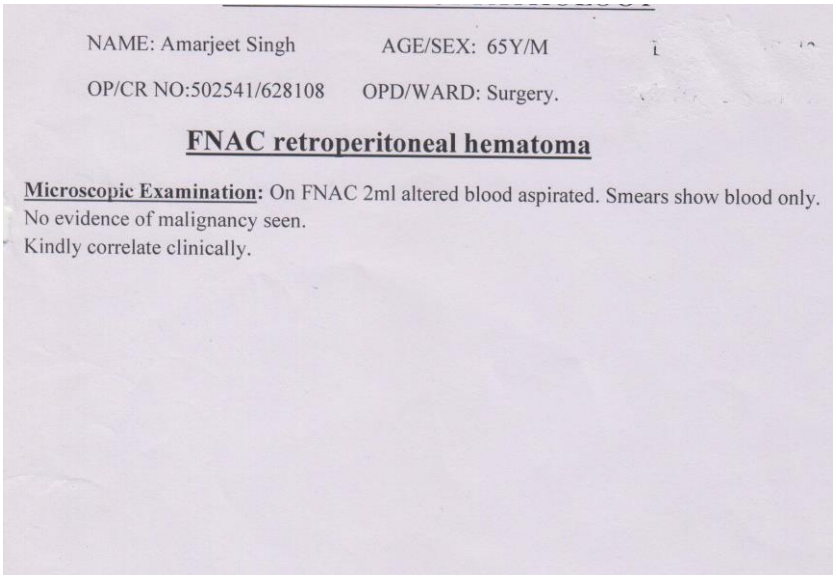
Lt. Kidney is normal in size,site,shape,outline and echotexture. No stone is seen. ***Mild hydronephrotic changes are seen in it.*** No mass is seen. Cortico-medullary differentiation is well maintained.
Lt ureter is normal.
A complex cystic mass 14x7 cms in size with septae is seen in left lumbar region reaching upto left iliac fossa. It is seen separate from left kidney.

U.Bladder : is normally distended and is smooth in outline. Its wall thickness is normal. No mass is seen in it. Its lumen is clear. No stone /internal echoes are seen in it.

Prostate : The prostate is normal in size. It is normal in echotexture and smooth in outline. Its capsule is intact. No focal lesion /mass /calcification is seen in it.
Seminal vesicles are normal in size and echotexture.No cysts /mass is seen.
***GE junction** shows normal wall thickness.
***IVC and Aorta** are normal in calibre.
*No lymphadenopathy/ ascites/ pleural effusion is seen.
***Rt iliac fossa** is normal.
***Psoas muscles** are normal in echotexture.
*No dilated **gut loops** are seen.
***Anterior abdominal wall** is normal. No mass/ fluid collection is seen in it.
No e/o umbilical/ inguinal hernia is seen.

Imp :-- Complex Cystic Mass Left Lumbar Region
Mild Hydronephrosis Left Kidney.

Fig-2: USG report



NAME: Amarjeet Singh AGE/SEX: 65Y/M

OP/CR NO:502541/628108 OPD/WARD: Surgery.

FNAC retroperitoneal hematoma

Microscopic Examination: On FNAC 2ml altered blood aspirated. Smears show blood only.
No evidence of malignancy seen.
Kindly correlate clinically.

Fig-3: FNAC report of the hematoma

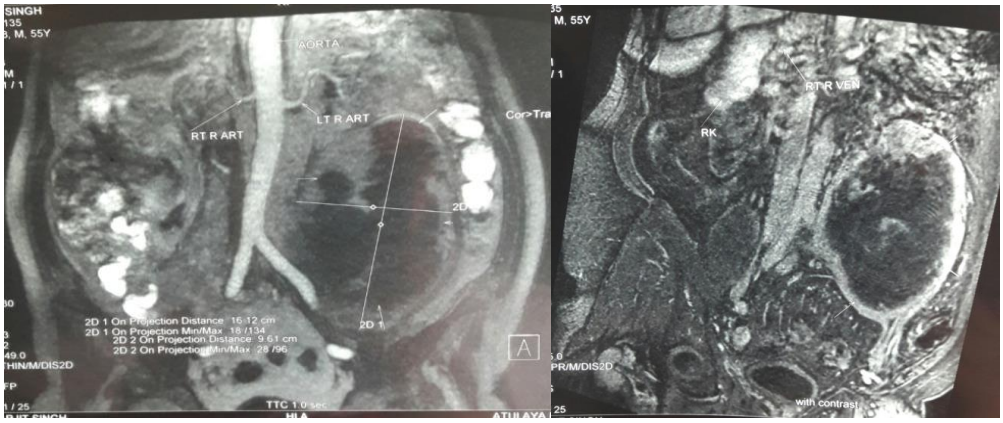


Fig-4: Contrast enhanced MR angiography

Clinical History : RETROPERITONEAL HEMATOMA.

Equipment : Siemens Espree 1.5T wide-bore MR Scanner "Magnetom Espree".

Technique : MR examination of the whole abdomen was performed using dedicated body coil. SE T1 & FSE T2 weighted images were obtained in the axial plane with correlative FSE T2 weighted images in the coronal plane using respiratory gating.

Contrast materials and other medications administered: 10cc Gad

Procedure Complications/Allergic reactions: None.

Data source for reporting : Local [√] Remote : Film [ ] DICOM Images Teleradiology [ ]

Comparison studies: None.

OBSERVATIONS:

LIVER appears normal in size, outline and signal intensity. No focal lesion seen. The region of porta appears normal. Intrahepatic vascular structures appear unremarkable. No evidence of any dilatation of the intra hepatic biliary radicles (IHBR) seen. Right & left hepatic ducts are normally seen with no obvious dilatation.
CBD appears normal in course & calibre and is seen upto its lower end.

GALL BLADDER is not seen.
PANCREAS appears normal in size and morphology. Pancreatic duct is not dilated.
SPLEEN appears normal in size, outline and signal intensity. No focal lesion seen.

KIDNEYS measure within normal limits & appear normal in shape, outline & position with normal cortico-medullary differentiation. No obvious mass lesion seen.
There is e/o a 19.2x 9.6x 9.2cm heterogenous signal lesion with T2 & STIR hyperintense signals in the left side abdominal cavity cented in the retroperitoneum.
The lesion has no significant post contrast enhancement.
The lesion is displacing the left kidney superiorly & psoas muscle posteriorly.
There is compression of the left ureter by the lesion with resultant grade I hydronephrosis & perinephric fat stranding.

DIAGNOSTIC ONE STOP CENTRE

Right pelvicalyceal system is normal with no evidence of any hydronephrosis.

The aorta & both renal arteries are normal in course & caliber. Bilateral single renal arteries with no aberrant vessels is seen.

ADRENAL GLANDS appear unremarkable.

Urinary Bladder is well distended and reveals normal signal intensities on T1 & T2 weighted images. No obvious intravesical mass or filling defect seen. the wall appears smooth & regular. Perivesical fat planes appear fairly well preserved.

Prostate & Seminal Vesicles appear normal in size, shape and signal morphology.

No evidence of any ascites / free fluid or upper retroperitoneal lymphadenopathy seen.
Vascular structures under view display normal flow voids.

CONCLUSION: Normal renal angiography. No extra-vasation of contrast is seen in the region of hematoma.
A large left side retroperiteneal hematoma is seen below the left kidney displacing it antero-superiorly & compressing the psoas posteriorly.
It is compressing the left ureter with resultant grade I hydronephrosis & perinephric fat stranding.

Fig-5: MR angiography report

Fig-6: MRI cut showing retroperitoneal hematoma

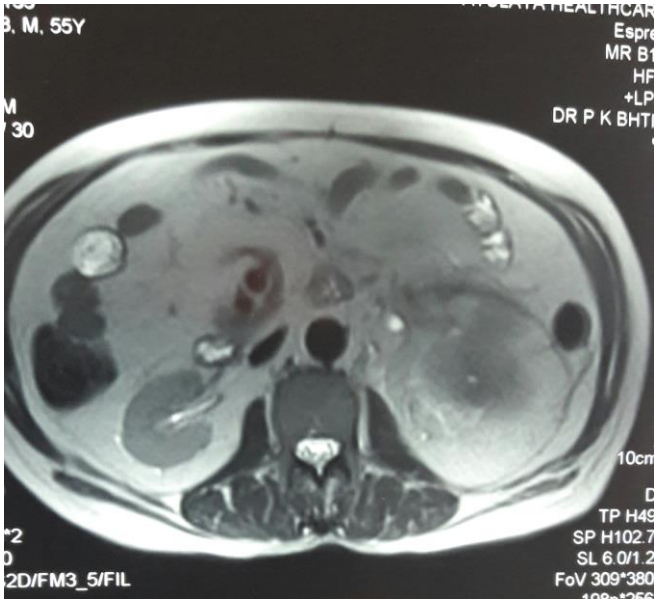


Fig-7: MRI cut showing retroperitoneal hematoma

DISCUSSION

Definition of Wunderlich syndrome, also known as spontaneous retroperitoneal haemorrhage (SRH), was first given in 1700 by Bonet and was more completely explained by Wunderlich [6]. Although SRH is commonly associated with Lenk's triad (acute flank pain, symptoms of internal bleeding, and upper and lower quadrant abdominal tenderness to palpation – costovertebral angle tenderness), the most common signs and symptoms described are abdominal pain (67%), hematuria (40%), and shock (26.5%) [7, 8]. It is frequently found in conjunction with hypertension (33–50%) and atherosclerosis (80-87%).The symptoms of retroperitoneal haemorrhage are variable, depending on the aetiology, the amount and the speed of bleeding. Palpable abdominal or groin mass, flank ecchymosis and anaemia may occur soon and even may be the first manifestation if massive retroperitoneal haemorrhage occurs [5]. An initial angiography must be performed to confirm the bleeding site and to identify anomalous or

variant vascular anatomy, CT and MRI remain the most powerful diagnostic tools [9]. Magnetic resonance imaging is helpful to differentiate blood from tumour but is performed only for patients in stable condition [11]. The mainstay management currently consists of modification or cessation of medication according to its clinical requirement, correction of the anticoagulation state, volume resuscitation and hemodynamic stabilization with adequate haematology and transfusion therapy and supportive measures [10].

CONCLUSION

Wunderlich syndrome is a rare complication of antiplatelet drug ecospirin. It may present as pain in flank region and palpable abdominal lump in some cases. Management includes investigations and treatment of underlying condition for symptomatic improvement. As relevant to our case where a 65 year old male patient on ecospirin presented with lump in flank region with pain left flank region and renal function derangement important investigations and withdrawal of antiplatelet drug ecospirin resulted in spontaneous resolution of lump and improvement in general condition of patient. Hence this is a rare and important complication to be kept in mind and managed accordingly if it occurs in patients on ecospirin.

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