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Short Running Title: Myelolipoma is a rare benign adrenal tumor. Usually are small and asymptomatic ,unilateral,and composed of mature adipose tissue with elements of hematopoietic series.mostly discovered as an “incidentaloma” during autopsy the incident detection of these tumor is increasing in frequence with widespread use of cross-sectional imaging such ultrasonography and computed tomography(CT). The most consistent complaint is abdominal pain caused by

hemorrhage within the tumor or when lesion went large .In this paper we reporting symptomatic adrenal myelolipoma because of rarity and its cosidereable size.

Guarantor of Submission: The corresponding author is the guarantor of submission.

SUMMARY

Myelolipoma is a rare benign adrenal tumor. Usually are small and asymptomatic ,unilateral,and composed of mature adipose tissue with elements of hematopoietic series.mostly discovered as an “incidentaloma” during autopsy the incident detection of these tumor is increasing in frequence with widespread use of cross-sectional imaging such ultrasonography and computed tomography(CT). The most consistent complaint is abdominal pain caused by hemorrhage within the tumor or when lesion went large .In this paper we reporting symptomatic adrenal myelolipoma because of rarity and its cosidereable size.

Case presentation: A 54-year old obess woman was referred to Golestan hospital with abdominal pain, on ultrasound abdominal & CT examination, reported adrenal mass with possibility of lipoma, fat rich adenoma. patient underwent surgery and histopathological study revealed adrnal mylolypoma measuring 7*3.5*2 cm consist of adiposcytes associated with hematopoetic elements .Myelolipoma as a incidental diagnosis might kept in mind and evaluate accordingly validate protocol because of surgical emergencies such as spontaneous retropritoneal hemorrhage .

TITLE : Adrenal Myelolipoma : a case report

Abstract

Introduction

Myelolipoma is a rare benign adrenal tumor. Usually is small asymptomatic and unilateral .mostly discovered as an “incidentaloma” during autopsy. The incident detection of these tumor is increasing in frequence with widespread use of cross-sectional imaging such ultrasonography and computed tomography(CT). The most consistent complaint is abdominal pain caused by hemorrhage the tumor When the lesion became larger than 5 cm .In this paper we reporting symptomatic adrenal myelolipoma because of rarity and its cosidereable size.

Case Report

we report a woman with obesity and mild hypertention presented with unilateral myelolipoma measuring 7*3.5*2 cm Which pathological study revealed adrenal consist of adiposcytes associated with hematopoetic elements and blood clot.

Conclusion: Myelolipoma as an incidental diagnosis might kept in mind and evaluate accordingly validate protocol because of surgical emergencies such as spontaneous retropritoneal hemorrhage.

Keywords : Myelolipoma , adrenal tumor , incidentaloma.

TITLE : Adrenal Myelolipoma : a case report

INTRODUCTION

Myelolipoma is an uncommon benign tumor like lesion of the adrenal gland [1] . These tumors were initially described by Giercke in 1905, and 24 years later, Oberling coined the term 'Myelolipoma' [2] . They are composed of mature adipocytes and normal hematopoietic tissue [1-3] . The incidence of adrenal Myelolipoma is reported as being 0.08 to 0.4% at autopsy [4,5] . In the past, this tumor was primarily detected on autopsies[6].Lately, due to widespread use of radiological studies such as ultrasonography, CT, and magnetic resonance imaging (MRI), incidental discovery of indolent adrenal myelolipomas has become more common[7] .According akamatsu et all result its incidental detection has become more common, reaching up to 7% of the adrenal masses. The well-recognized complication of adrenal Myelolipoma is spontaneous retroperitoneal hemorrhage. No potential of malignancy for adrenal Myelolipoma has been proved [8]. seldom If the diagnosis of adrenal myelolipoma cannot be made with confidence using noninvasive imaging, fine-needle aspiration (FNA) biopsy should be considered [9-11].Also in cases where expectant management is being considered, FNA can definitively rule out malignancy. The presence of mature adipocytes and hematopoietic elements is diagnostic of myelolipoma [10-12].

The diagnosis of myelolipoma is based on the identification of macroscopic fat within the tumor with negative hounsfield on CT [figure 1], [13].the differential diagnosis should include renal angiomyolipoma,retropritoneal lipoma and liposarcoma[12] . bleeding or rupture ,More severe symptoms include hematuria, renovascular hypertension, even surgical emergencies such as retroperitoneal hemorrhage of the masses presented with life-threatening cardiovascular shock was reported [14-18].

this paper report a case of clinicopathological charactereristic of adrenal myelolypoma with considreble size and bleeding when the tumor where diagnosis was made on the basis of pathological Examination .

CASE REPORT

The obess 54-year woman refered to surgical department with intermittent, dull aching, vague abdominal pain of few months duration and history of mild hypertension. The physical examination was unremarkable. CT scan imaging show a right adrenal mass measuring 7* 3.5 *2 cm. It was labeled as a fat containing mass, raising the possibility of Lipoma, fat-rich adrenal adenoma or liposarcoma. The patient was subjected to multiplanar, multisequential magnetic resonance imaging (MRI) of the adrenal glands. The findings consistent with hetrogenose solid mass . some hormonal Laboratory investigations was done before surgery, for rolling out pheochromocytoma ,cushing syndrome , Aldostronism and CAH (Cortico adrenal hyperplasia) (table 1). Patients underwent unilateral laparoscopical adrenalectomy , Pathological investigation of tumor in grossly shows well defined mass measure about 7 cm , weighting 310 grams.in cut section foci of solid yellow tissue and blood clot area are noted (Figur2).Microscopic Histopathology revealed Myelolipoma ccomposed of adipocytes with interspersed hematopoietic elements, consist of myeloid and erythroid precursors (Figure 3).

DISCUSSION

Myelolipoma in our Patient were found with history of mild hypertension and obessity. Occasionally there are clinical symptoms such as abdominal pain or flank pain due to exeede growth, bleeding within tumor as our patient and Spontaneous retroperitomeal tumor bleeding [15,16]. The diagnosis can be established by US, CT or MR examination based on the indentification of negative Hounsfield values for fat within the tumor On CT, but visual comparison to visceral or subcutaneous fat is insufficient in most cases[11,17]. In the majority of the cases, adrenal myelolipomas are unenhance foci inT1- weigtade imaging [12].these tumor is usually unilateral and rarely exceed 4 cm. However, very large and bilateral myelolipomas have been reported [13].based on other literature one of The largest adrenal myelolipoma reported weighted 6 kg and measured 31 cm × 24.5 cm × 11.5 cm [16,18, 14]. most patient with myelolypoma underwent surgical resection for a suspected neoplasm,recently with increased frecuent detection of myelolipoma,the treatment has been a matter in debt.According Cristofaro MG result asymmetric, Small

tumors <5cm are treated conservative with 6-9 month interval wheres symptomatic and large tumor>10 cm shoud be underwent surgry [5]. The pain responded to an intercostals nerve block, which was done by pain specialist [19]. Since the risk of spontaneous rupture or bleeding is minimal in these small myelolipoma, observation can avoid lifelong steroid substitution [5, 16] .however According result of Daneshmand et all surgery indicate if tumor exceeds 7cm [6]. Additionally, myelolipomas have been reported to grow significantly during observation and there are number of case reports spontaneous hemorrhage or bleeding with minor trauma [20,21].

CONCLUSION

We conclude due to the recent increase in the number of incidentally found adrenal myelolipomas,as the matter of fact because of unawareness patient for following or rarly insuffient medical facilities ,because surgical emergensis, tight guidelines are now needed to help decided between indolent watchfull masses to waiting versus surgical removal of these benign tumors.

CONFLICT OF INTEREST

the authors declare that there is no conflict of interests regarding the publication of this paper.

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TABLES

Table 1:symmery of the useful laboratory data from patient to rulling out differential diagnosis.

Table – 1		Summery of important laboratory data of our patien
Laboratory Data		**Normal Refrence Range**
Potassium(K)	**4.3 mmol/li**	**3.5-5 mmol/li**
NA	**141 mE/lit**	**136-45mE/lit**
Plasma rennin activity	**4.32ng/ml-hr**	**1-10 ng/ml-hr**
Aldostron	**15.4ng/dl**	**5-20 ng/dl**
17- oH progestron	**0.7 microgram/L**	**0.2-5**
noradrenaline	**55 ug/24hours(h)**	**97ug/24h**
Dopamine	**454 ug/24h**	**500ug/h**
Total volume of urin	**2600ml/24 h**	
Adrenalin	**20ng/L**	**84 ng/L**
Dopamin	**20 ng/l**	**85 ng/l**
Dehydroepiandrostenedione (DHEAS)	**13 MICRI/DL**	**12-35 MICRI/DL**
Urin free cortisole (ufc)	**42 MIC/24h**	**UP TO 120 MIC/24h**

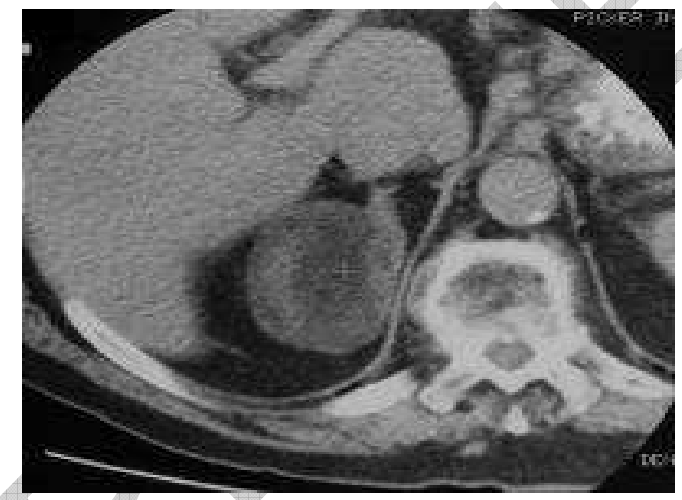
Abbreviations: CT: computed tomography; MRI: magnetic resonance imaging; US:ultrasonography; DHEAS: Dehydroepiandrostenedione, ufc: Urin free cortisole.

FIGURE LIGEND

Figure 1 : Unenhanced CT in an asymptomatic myelolipoma reveals a 6-cm right adrenal mass with density measurements that range from -14 to -27 Hounsfield units Figure 2 : Gross of myelolipoma , well defined mass measure 7*3.5*2 cm which ,On cut section show foci of solid yellow tissue & brownish blood clot like area .

Figure 3 : microscopy of lesion revealed mature fat cell mixed with hematopoietic Elements .

FIGURE



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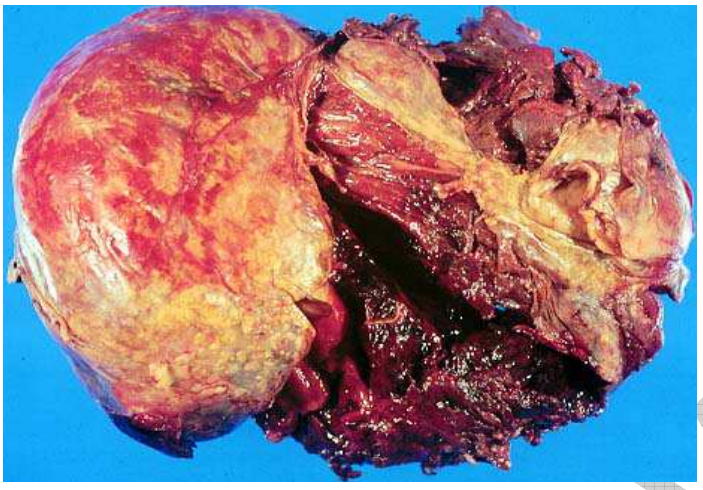

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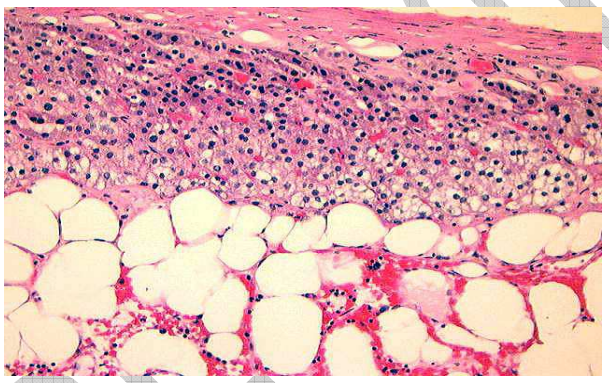

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