Case Report

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Adrenal Cystic Lesion Presented With Spontaneous Hemorrhage

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Abstract

Introduction: Adrenal hemorrhage is a rare but life-threatening condition. Spontaneous hemorrhage occurs without any trauma. Focal bleeding may cause even a subclinical condition or cardiovascular collapse with massive bleeding. Non-proper diagnosis may cause even death. In literature most of the cases are treated conservatively. Conservative treatment necessitates close follow up and if fails, surgery becomes challenging.

Case: Here, we present a case with spontaneous adrenal hemorrhage that was first taken to conservative treatment and undergone emergency surgery.

Conclusion: Conservative treatment of adrenal hemorrhage necessitates close follow up and if fails, surgery becomes challenging.

Key Words: Adrenal hemorrhage, retroperitoneal hematoma, cyst

Introduction

Spontaneous adrenal hemorrhage is a rare cause of retroperitoneal bleeding. The most common cause of unilateral adrenal bleeding is blunt abdominal trauma (traumatic adrenal rupture), which should be differentiated from the hemorrhage caused by primary or metastatic adrenal tumors[1]. Adrenal hemorrhage can be seen in cases with liver transplant, primary or metastatic adrenal tumors. Unilateral adrenal bleeding rarely caused by uncomplicated pregnancy, neurofibromatosis and long term non-steroidal anti-inflammatory drug use[1, 2]. The cases can be even asymptomatic or may present with hemorrhagic shock, flank pain or fever. In autopsy series, adrenal hemorrhage was detected in 0.3-1.8% of asymptomatic cases; bilateral adrenal hemorrhage was detected in 15% of cases with hemorrhagic shock[2, 3].

We aimed to present a case with adrenal hemorrhage; first followed conservatively and undergone emergency adrenalectomy.

Case

Twenty-five years old female patient admitted to hospital with abdominal pain localized on the left side of the abdomen. She had no fever, no urinary discomfort. At physical examination, nothing but left upper quadrant tenderness was detected. At abdominal ultrasonography, 11x10 cm mass that pushes the left kidney laterally and enlarged mesenteric lymph nodes were identified. Abdominal computed tomography revealed an adrenal hematoma 10 cm in diameter that pushes the stomach and the spleen (Figure 1). The patient was hemodynamically stable and internalized to the surgery department for follow up. At the follow up, hemoglobin level of the patient dropped by 3 gr/dl and control computed tomography detected the enlargement of the hematoma. Therefore, the patient had undergone emergency adrenalectomy. At the operation, an encapsulated adrenal hematoma, 15 cm in diameter was detected and left adrenalectomy was performed. The patient had no postoperative complaints and discharged from the hospital at the 5th postoperative day. Postoperative evaluation of the patient revealed no hormonal disturbance related to the adrenal disease. At the histopathological examination a ruptured endothelial cyst of the adrenal gland was detected.

Discussion

In literature most of the adrenal hemorrhage cases were related to pregnancy. Adrenal hemorrhage can be related to traumatic or non-traumatic reasons. Non-traumatic reasons are coagulopathy, anti-coagulant therapy, and tumor like angiomyelipoma, stress and shock. Tumors that may cause

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Figure 1

spontaneous hemorrhage are pheochromocytoma, myelipoma, metastasis, carcinoma and rarely adenoma. Spontaneous hemorrhage at a young age is extremely rare. In literature there are only two cases with spontaneous life threatening adrenal hemorrhage[5, 6]. The case we present is the third case in literature.

Adrenal cystic lesions can be subdivided as; pseudocyst, endothelial cyst, epithelial cyst and parasitic cyst. Endothelial cysts consist of the 45% of all adrenal cysts[7]. The first case with intra-cystic hemorrhage was reported by Vega et al. in 2014[8]. However in that case the patient was hemodynamically stable and therefore, operated electively. Besides in our case the hematoma enlarged and the hemoglobin level dropped, therefore, the patient underwent emergency surgery. At the operation a hematoma 15 cm in diameter was detected and adrenalectomy was performed as it was reported at the literature[9, 10].

As an adrenal tumor may be the cause of the hemorrhage, the patient should be evaluated for the hormonal disturbances. In our case, due to emergency surgical need, adrenal hormonal panel could not been evaluated. However, there was no electrolyte imbalance before the surgery.

In adrenal hemorrhage most of the cases are asymptomatic or flank pain, fever or hemorrhagic shock may be the cause of admittance to hospital. Therefore even it is asymptomatic, adrenal hemorrhage should be kept in mind in cases with flank pain.

The cases with adrenal or retroperitoneal bleeding should be closely followed and pheochormacytoma should always be kept in mind. The priority should be to keep the patient hemodynamically stable. Hematocrit level and hematoma diameter should be followed closely. Non-traumatic cases can be evaluated by computed tomography or magnetic resonance imaging. In evaluation of the retroperitoneum magnetic resonance imaging is favorable.

Angiographic embolization is a valuable tool for cases with active bleeding. If the embolization is enough to keep the patient stable, conservative follow can be sustained. Surgical options are always kept in mind in case of hemorrhagic shock. Before the operation medications for pheochromacytoma should be ready to use.

Conclusion

In case of retroperitoneal hematoma, abdominal or flank pain, adrenal hemorrhage should be an option in differential diagnosis.

References

1. Hiroi N, Yanagisawa R, Yoshida-Hiroi M, Endo T, Kawase T, Tsuchida Y ve diğ. Akciğer adenokarsinomundan bilateral adrenal metastaza bağlı retroperitoneal hemoraji. J Endocrinol Invest. 2006; 29 : 551-4.
2. Gavrilova-Ürdün L, Edmister DB, Farrell MA, Watson WJ. Gebelikte spontan adrenal kanama: Başarılı bir konservatif yaklaşımın literatür ve olgu sunumu. Obstet Gynecol Surv Mart. 2005; 60 : 191–5.
3. Kovacs KA, Lam YM, Pater JL. Bilateral kitle adrenal kanama. Varsayımsal risk faktörlerinin vaka kontrollü yöntemle değerlendirilmesi. Tıp (Baltimore) 2001; 80 : 45-53.
4. Pushkar P, Agarwal A (2015) Spontaneous massive adrenal hemorrhage: a management dilemma, *Journal of Endourology Case Reports* 1:1, 52–53, DOI: 10.1089/cren.2015.0003.
5. Paluszkiewicz P, Ambroziak I, Holynska-Dabrowska K, Siezieniewska-Skowronska Z, Paluszkiewicz A. Spontaneous rupture of adrenal haemangioma mimicking abdominal aortic aneurysm rupture. Arch Med Sci. 2010;6(1):122–125
6. Peng X, Luo W, Zhang X, Zhu W. Sudden onset flank pain: a case report of retroperitoneal hemorrhage secondary to a ruptured adrenal hemangioma. J Pain Res. 2018;11:1421-1424.
7. Foster DG. Adrenal cysts. Review of literature and report of case. Arch Surg 92:131–43, 1966.
8. Fernández-Vega, I., Camacho-Urkaray, E. & Guerra-Merino, I. Huge Adrenal Hemorrhagic Endothelial Cyst Secondary to an Adrenal Arteriovenous Malformation and Mimicking a Malignant Lesion Endocr Pathol (2014) 25: 443.
9. Lyu X, Liu L, Yang L, Gao L, Wei Q. Surgical management of adrenal cysts: a single-institution experience. Int Braz J Urol. 2014 Sep-Oct;40(5):656-65
10. Damburacı, N , Güner, M , Sevinç, B , Karahan, Ö . (). Use of a vessel sealing system (LigaSure Impact™) in the sealing and division of the intestine. Ege Tıp Bilimleri Dergisi, 1 (1), 7-12