INTRODUCTION

A spontaneous retropharyngeal hematoma is a rare condition with a difficult diagnostic. This disease may rapidly progress to an airway obstruction. The author reports about a case of a 56-year-old man with an acute onset of sore throat, dysphonia and dyspnea. A retropharyngeal high attenuated soft tissue density could be seen on the neck CT. A rapid improvement of the retropharyngeal abnormality was seen on the 3 days follow-up MR imaging. Signal changes caused by blood products which were visible on the MRI images suggested the diagnosis of retropharyngeal hematoma. The patient was conservatively managed.

CASE REPORT

A 56-year-old man without a history of pre-existing neck disease presented to the emergency ward with sore throat, dysphonia and dyspnea. The symptoms were sudden in onset, severe in nature and rapidly progressive over two hours. The patient was a heavy alcoholic but had no prior cardiovascular, respiratory or gastrointestinal symptoms, no medical history or history of foreign body ingestion and also no past or current medication. The neck was non-tender and no significant limitation of neck movement was present. The subject was not febrile and presented a normal blood pressure. The hematologic evaluation showed a hematocrit of 47.9%, hemoglobin of 15.9 g/dL, white blood cell count with 13610/uL (neutrophil 73.7%, lymphocytes 15.7%, monocytes 8.2%), platelet count 251000/dL, erythrocyte sedimentation rate (ESR) 8 (0–10) mm/hr and C-reactive protein 25.3 (0–8) mg/L. Coagulation tests showed 96% prothrombin activity, a normal partial-thromboplastin time and a fibrinogen of 485 mg/dL. In the fiberoptic examination of the pharynx a significant anterior bulging of the posterior pharyngeal wall without ecchymosis was visible.

The plain neck lateral view showed a markedly increased
Spontaneous Retropharyngeal Hematoma

T1 weighted spin echo images [repetition time (TR)/echo time (TE), 433.3/10.0] a diffuse homogeneous hyperintensity was shown within the lesion. The lesion showed a low signal intensity on the fat suppressed T2 weighted images (TR/TE, 3500/47.9, short T1 inversion recovery). On the post-contrast T1 weighted fast spin echo images (TR/TE, 666.7/7.5) the lesion was not enhanced. Above mentioned image sequences disclosed typical signal characteristics of a subacute hematoma and represented intracellular methemoglobin converted from deoxyhemoglobin (Fig. 3) (2). The thickness of retropharyngeal prevertebral soft tissue was decreased in the 3 days follow-up check of the plain neck lateral view (Fig. 4).

The diagnosis of spontaneous retropharyngeal hematoma was suggested on the basis of clinico-radiologic findings. The patient remained stable with no progressive airway compromise. Conservative treatment was selected and a complete resolution of sore throat, dysphonia and dyspnea was reached. The patient was discharged within 5 days. The patient remained asymptomatic during the follow-ups 1 week and 1 month later.

DISCUSSION

Retropharyngeal hematoma is a rare entity with a fatal outcome potential owing to progressive internal blood loss and airway obstruction. The diagnosis can be difficult. In cases with no history of trauma, an early diagnosis in an outpatient department may be challenging because of non-specific-symptoms, such as neck pain or dysphagia, especially when a hematoma is limited to a retropharyngeal space. A patient may initially have only a sore throat without shortness of breath and may be misdiagnosed with viral pharyngitis (2). If a retropharyngeal mass is identified, the patient may be misdiagnosed with retropharyngeal abscess also.

The classical manifestations of cervicomediastinal hematomas are referred to as “Capps triad” and consist of tracheal and esophageal compression, anterior displacement of the trachea and subcutaneous bruising over the neck and anterior chest (2-6). The blood loss caused in a few cases a hypovolemic shock as a complication. However, in cases of moderate retropharyngeal hematoma, clinical signs are related to airway compression and include dysphagia and upper respiratory failure without a subcutaneous bruising (2).

Fig. 1. Plain neck lateral view shows markedly increased thickness of retropharyngeal prevertebral soft tissue.

Fig. 2. Precontrast (A) neck computed tomography scan show an expansile mass lesion with slightly high attenuation as compared with muscle (arrow). Postcontrast CT (B) shows the high attenuated lesion (arrow) with slight peripheral enhancement in retropharyngeal space with narrowing of airway from occiput to C7 level.
CT and MR offer the exact localization of the lesion. The MR allows more specific diagnosis about blood products in different stages of evolution, because of their paramagnetic signal properties which change over the time depending on their dominant component (acute deoxyhemoglobins, subacute intra- or extracellular methemoglobins and chronic hemichromes) (2).

The differential diagnosis of retropharyngeal hematoma includes retropharyngeal infection, acute calcific prevertebral tendinitis and retropharyngeal effusion. Clinical and laboratory findings such as fever and dysphagia, leukocytosis and elevated ESR are important for the correct diagnosis. CT and MR images show a contrast enhancing retropharyngeal soft tissue or a ring enhancing abscess pocket formation. A patient with an acute
calcified prevertebral tendinitis is less febrile and may have a normal white blood cell count. The CT of the such patient shows a calcific density in the site of the insertion of the longus colli muscle just anterior to the upper cervical spine. An effusion extends into the retropharyngeal space from C1 down to the level of C5 or C6. The abnormality begins in the prevertebral space rather than in the retropharyngeal space and shows less dense fluid collection without any contrast enhancement (10).

The treatment of retropharyngeal hematoma is basically to secure the airway and remove the hematoma. A close airway monitoring with the ability for an active intervention by intubation or a surgical maintenance of airway is essential in cases where an infection, foreign bodies or a continuous hematoma expansion are highly suggestive (2). However surgical intervention should be avoided unless a treatable etiological factor is found or an airway compromise occurs. Most cases of small or moderate hematomas can be resolved with a conservative management. The spontaneous retropharyngeal hematoma is usually less severe also (4).

The author presents a rare case of spontaneous retropharyngeal hematoma conservatively managed. A clinical diagnosis can be difficult for this potentially life-threatening condition. This case shows the possibility of an acute retropharyngeal swelling due to acute spontaneous hemorrhage. CT and MR imaging provide important informations for the correct diagnosis in this situation.

REFERENCES

자발성 후인두 혈종: 증례 보고 및 문헌고찰

류지화

자발성 후인두 혈종은 드물게 발생하고 진단이 어려운 질환으로, 급속히 진행하여 기도 폐색을 초래할 수 있다. 저자는 갑자기 발생한 인후통, 발음곤란과 호흡곤란의 증상으로 내원한 56세 남자에서 발생한 자발성 후인두 혈종을 보고하고자 한다. 정부 컴퓨터단층촬영에서 후인두에 연부조직음영의 고 이상음영이 관찰되었다. 그리고 3일 후에 시행한 자기공명영상에서 후인두 병변은 빠른 호전을 보였고, 후인두 혈종으로 진단하여 고식적인 보존적 치료를 시행하였다.

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