Cystic Hygroma in a Newborn
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CASE REPORT

ABSTRACT

A newborn presented with cystic hygroma in axilla. In view of rarity of condition, presentation at birth at unusual site and classical features of clinical condition, we are reporting the case.

Key Words
Axillary swelling, cystic hygroma, newborn

INTRODUCTION

Cystic hygroma is a benign congenital lymphatic malformation that has its origin in the hypoplastic communicating channels between lymphatic systems and their draining veins. The incidence of cystic hygroma is approximately 1/6000 live births1. 70–80% of cystic hygromas occur in the neck, usually in the posterior cervical triangle2. They are soft, cystic, compressible, of variable size but characteristically brilliantly transilluminant. Cystic hygroma is known to present at birth in about 50% of the affected newborns and 90% present by age 2 years3. their course is indolent in most cases3. However, these lesions may hemorrhage, develop inflammation or infection, or may progressively enlarge, leading to an expanding lesion that may physically compress local organs6. Surgical excision is regarded as the treatment of choice. We report here a case of cystic hygroma with the classical presentation but at an uncommon site.

CASE REPORT

A one day old 2.7kg, term, male newborn was admitted with complaints of a swelling in the right axillary region. The infant was delivered at a community hospital and his general condition was good. A 5.0 x 4.0 cm swelling extending from the axilla to mid-thoracic region. (Figure1)
Cystic hygromas tend to enlarge progressively over months, a relatively rapid increase in size has also been described in normal babies as well as in babies born with chromosomal abnormalities. This predication is related to embryological development of lymphatic tracts. In 20% cases, it may occur in axilla, and rare sub sites are superior mediastinum, chest wall, mesentery, retro-peritoneal region, pelvis and lower limbs. It is described as a congenital multiculoculated lymphatic lesion containing watery fluid. They are soft, vary in size and shape, and tend to grow extensively if not surgically excised. They are most commonly found at birth although some may occur after birth. Cystic hygroma is known to present at birth in about 50% of the affected newborns and 90% present by age 2 years. It can be found in normal babies as well as in babies born with chromosomal abnormalities like Turner syndrome, Noonan syndrome, trisomies, fetal alcohol syndrome, chromosomal aneuploidy, cardiac anomalies and fetal hydrops. Although cystic hygromas tend to enlarge progressively over months, the latter usually has a cystic structure containing only cerebrospinal fluid and neural elements (myelomeningocele). The diagnosis of lymphangiomas is usually made solely on the basis of history and physical examination. USG with Doppler flow is cost-effective; however, immediate surgery is indicated with signs of infection and for lymphangiomas located over tongue, vocal cord, eyes, ears, nose interfering with the functioning of the organ. Other treatment modalities include aspiration, radiation, and injection of sclerosing agents, in particular the agent OK-432, derived from a strain of streptococcus pyogenes, which has been used successfully, especially in macrocystic lymphangiomas and in patients who are at increased anesthetic risk.

DISCUSSION

This case is discussed here because of classical swelling, at less common site presenting at birth. Cystic hygromas or lymphangiomas are believed to occur as a result of the failure of establishment of appropriate connection to the normally present lymphatic channels. Lymphangiomas may be divided histologically into two major groups based on the depth and the size of abnormal lymph vessels. The superficial ones are called lymphangioma circumscripturn. The more deep seated ones are cavernous lymphangioma or cystic hygroma. Cystic hygroma was first described by Wernher in 1843. The most common site is the head and neck (75%) with more predilections over the left side. With in the neck, the posterior triangle is most commonly affected. This predication is related to embryological development of lymphatic tracts. In 20% cases, it may occur in axilla, and rare sub sites are superior mediastinum, chest wall, mesentery, retro-peritoneal region, pelvis and lower limbs. It is described as a congenital multiculoculated lymphatic lesion containing watery fluid. They are soft, vary in size and shape, and tend to grow extensively if not surgically excised. They are most commonly found at birth although some may occur after birth. Cystic hygroma is known to present at birth in about 50% of the affected newborns and 90% present by age 2 years. It can be found in normal babies as well as in babies born with chromosomal abnormalities like Turner syndrome, Noonan syndrome, trisomies, fetal alcohol syndrome, chromosomal aneuploidy, cardiac anomalies and fetal hydrops. Although cystic hygromas tend to enlarge progressively over months, the relatively rapid increase in size has also been described.

Cystic hygromas need to be differentiated from deep seated hemangiomas, soft tissue tumours like teratoma (very rare), lipoma. Cystic hygroma of the axillary space must also be differentiated from high thoracic myelomeningocele. The latter usually has a cystic structure containing only cerebrospinal fluid and neural elements (myelomeningocele). The diagnosis of lymphangiomas is usually made solely on the basis of history and physical examination. USG with Doppler flow is cost-effective; however, immediate surgery is indicated with signs of infection and for lymphangiomas located over tongue, vocal cord, eyes, ears, nose interfering with the functioning of the organ. Other treatment modalities include aspiration, radiation, and injection of sclerosing agents, in particular the agent OK-432, derived from a strain of streptococcus pyogenes, which has been used successfully, especially in macrocystic lymphangiomas and in patients who are at increased anesthetic risk.

CONCLUSION

Cystic hygroma should always be considered in the differential diagnosis of cystic lesions with onset at birth. This case highlights the importance of clinical history and examination in diagnosing this rare entity. It emphasizes that conventional physical signs (like transillumination) peculiar for it, can substitute unaffordable and unavailable sophisticated tools in countries with limited resources.

REFERENCES

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