



## A case report of Chondroid Syringoma in the axilla

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### Abstract

Chondroid syringoma (CS) is a rare mixed tumor of the skin. This asymptomatic tumor usually noticed as a nodular form intracutaneously or subcutaneously in the head and neck region of middle-aged male population. The nature of this tumor is benign and its malignancy is a rare phenomenon. Most acceptable diagnostic criteria include detailed histopathological examination. In this report we present a rare case of benign CS in an elderly woman in a relatively rare location - the axillary region.

### Key words

Appendageal tumor, chondroid syringoma, cutaneous mixed tumor, axilla



## Background

Chondroid syringoma is an uncommon skin appendageal tumor. This is relatively rare appendageal tumor composed of both epithelial and mesenchymal parts. Hirsch and Helwing first explained CS as a tumor which consists of sweat gland elements confined in a cartilaginous stroma [1]. Although there are documented cases of CS from different countries, but comparing with other skin tumors incidence of CS is very low, only 0.01-0.098% [2]. It was referred to as a mixed tumor by Virchow and Minsser for its microscopic features of varying amounts of both epithelial and mesenchymal origin [3]. This asymptomatic tumor usually noticed as a nodular form intracutaneously or subcutaneously in the middle-aged male population. The nature of this tumor is benign and its malignancy is a rare phenomenon [4]. Generally, this type of painless, firm nodular, tumor appears intracutaneously or subcutaneously [1, 5, 6]. The size of CS is usually small in between 1mm to 5cm, but in our case, it exceeded more than 5cm in its largest diameter [1, 6, 7]. There are reports stating the malignancy of CS, when the size is more so early diagnosis was important in this case. Most of the time CS found in head and neck region, but in our patient, it was in the axillary region, which is also rare [8, 9].

## Case Report

A 56 year-old-woman presented with a slowly growing nodule in her right axilla for one year, came to the Chitwan Medical College, Bharatpur-10, Chitwan, Nepal. Fine needle aspiration cytology (FNAC) was already done in other hospital, and reported as pleomorphic adenoma.

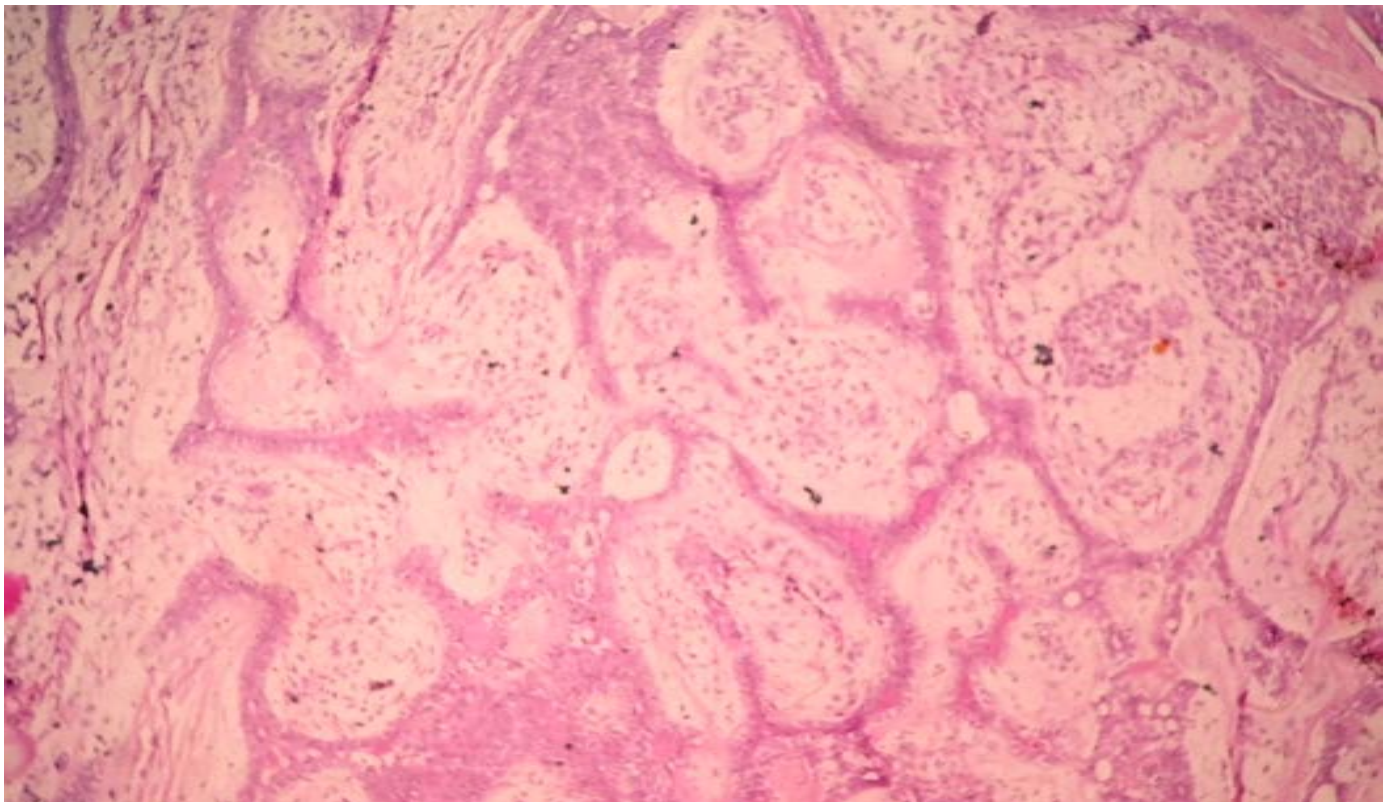
### Gross Pathological findings

Physical examination revealed a single, firm subcutaneous nodule of 6cm in its largest diameter, covered by normal skin. Gross morphological features shows characteristic circumscribed, capsulated, firm, gray white mass appears as nodule with focal cartilage.

### Microscopic histopathological findings

The lesion was carefully observed and recommended for histopathological examination. A microscopic examination showed a capsulated subcutaneous mass composed of epithelial and stromal elements. The epithelial cells arranged in trabeculae, cords, tubules, and acini with keratinizing squamous cysts and spindle cells. The stromal elements show chondromyxoid, cartilaginous and fibroblastic differentiation (Figure 1 and Figure 2). There was no evidence of structural abnormality. On the basis of gross & microscopic features, a diagnosis of CS was given.

**Figure 1- CS composed of epithelial cells arranged in trabeculae and cords with fibrous stroma containing myoepithelial cells (HE,X10)**





## Discussion

CS is a rare small-sized skin tumor, which is mainly found on the region of head and neck. They are non-ulcerating, slowly growing, firm subcutaneous or dermal nodules [1]. Sometimes local cystic degeneration occurs. Cýralýk H *et al.* reported a case of complete cystic degeneration of CS in axilla [10]. The size of CS is usually small in between 1mm to 5cm, but in our case, it exceeded more than 5cm in its largest diameter [1, 6, 7, 11]. Most of the cases, it is single, rare cases multiple lesions are observed [6]. Some cases are reported, where CS was observed in very young patients and in females [4, 12, 13]. In this case, patient is female, similar to other findings. Although most are benign, but there are evidences of malignant transformation [1, 7]. Surgical intervention is the best option of treatment [14]. In this case we got relatively large diameter - a possible chance of malignancy in future. Histopathological findings suggest that malignant transformation in a CS includes cytologic atypia, infiltrative margins, satellite tumor nodules, tumor necrosis, and sometimes involvement of deep structures. So early detection and clinical intervention is required in this type of cases [11]. These malignant types have been found in the extremities of younger females. Because there is no particular clinical appearance of these tumors, the diagnosis is primarily histopathological.

FNAC may be performed before excision to determine the pathology. However, histopathological examination is the most reliable method to establish a definitive diagnosis [15]. Case reports explaining cytological features are relatively less. In our case, FNAC was done earlier in another hospital with a conclusion of pleomorphic adenoma.

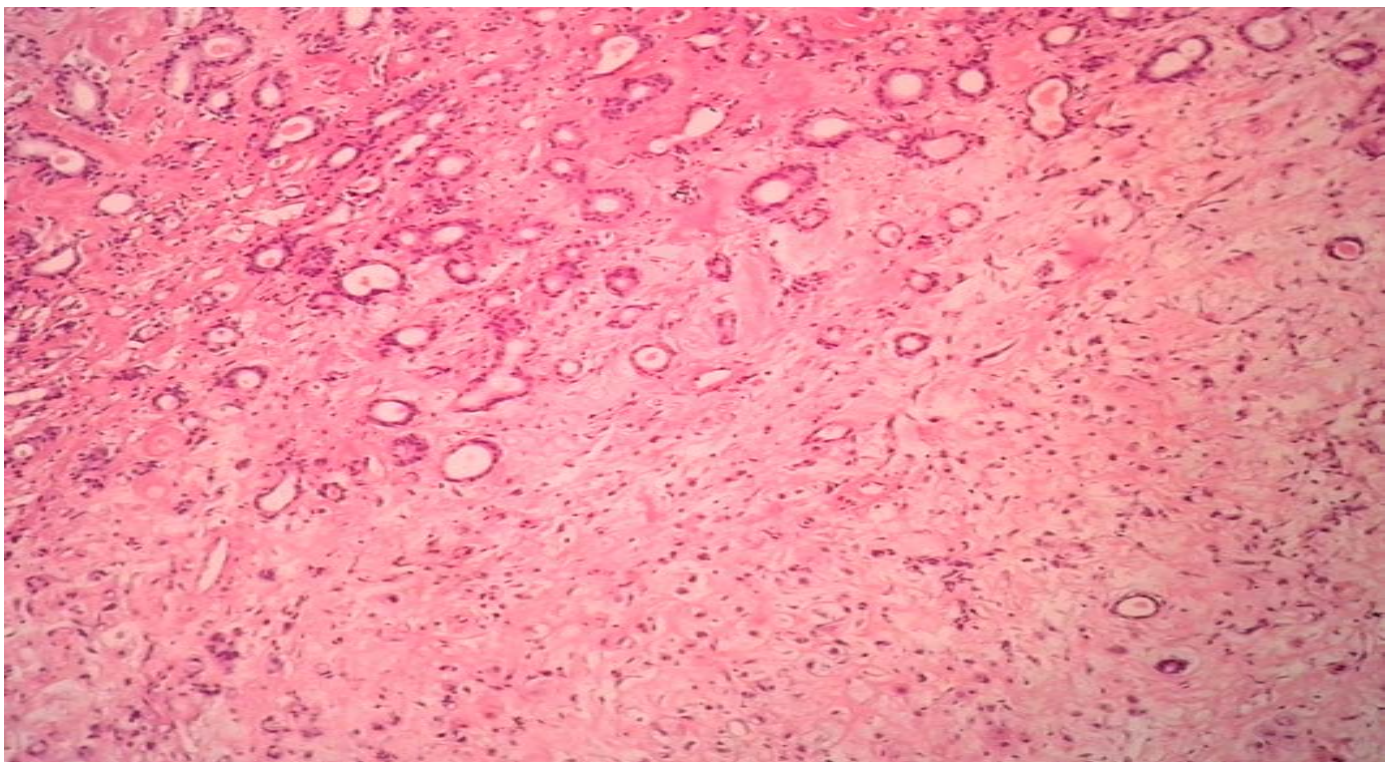
### Epidemiological scenario

Epidemiologically CS is reported from different parts of the world. In Nepal, there are relatively less reported cases. Kumar B reported a case of CS in nose and Upadhya P reported in right lower abdomen [14, 16]. In this case we reported an unusual location, the axillary region, relatively less reports are available [9].

### Differential diagnosis

Until the year 1961 physicians used a general terminology "pleomorphic adenoma" or benign mixed tumor of the skin of salivary gland type. This is a epithelial cells derived tumor with a differentiation toward adnexal structures such as hair follicle, sebaceous gland, apocrine sweat gland, eccrine sweat gland. Distinctive features can be observed in benign tumors of eccrine sweat gland and benign tumors of epithelial appendages. There are no clinically noticeable characteristic changes in the lesions, diagnosis is based on histological findings.

**Figure 2- CS composed of epithelial cells arranged in tubules, and acini in fibrous, and chondromyxoid stroma containing myoepithelial cells (HE,X10)**





There are vast numbers of types in benign tumors with eccrine differentiation, namely eccrine nevus, eccrine hidrocystoma, syringoma, eccrine proroma, eccrine spiradenoma, clear cell hidradenoma, papillary eccrine adenoma, and CS [17, 18]. Confirmation of diagnosis can be done by histological findings which include presence of tubuloalveolar and gland like structures with two or more cuboidal cell lines in a fibroadipoid or chondroid stroma. Observing its nature of slow-growth pattern as intracutaneous or subcutaneous nodules, differential diagnosis can be made [19].

#### Histological diagnostic criteria

Histologically CS can be diagnosed by the five most identifiable characters recommended by Hirsch and Helwig.

- 1) Presence of nests of cuboidal or polygonal cells;
- 2) intercommunicating tubuloalveolar structures lined with two or more rows of cuboidal cells;
- 3) ductal structures composed of one or two rows of cuboidal cells;
- 4) occasional keratinous cysts; and
- 5) a matrix of varying composition.

These changes were evident in our case also [1].

#### Treatment

Early histological diagnosis with a control of the lesion edges is important. Surgical excision is required for the complete cure. There are no reports explaining the effectiveness of chemotherapy and radiotherapy. There are documented side effects of radiotherapy, such as skeletal metastasis. Combination chemotherapy in patients with metastasis was not successful [20]. In our patient, complete excision of the tumor with surrounding normal edges of skin was performed. The patient was on follow up after one week and two months, both visits of the patient was uneventful and no recurrence was reported.

#### Conclusion

Due to nonspecificity in the clinical presentation, differential diagnosis is always a neglected part in the cases of CS. Awareness about CS may help surgeons to plan for complete excision because of the risk of malignant transformation. FNAC is also important in this context. However histopathological examination is a consistent diagnostic criteria for CS. A close follow-up is recommended to look for local recurrence and any features of malignancy. Our case was interesting because of its uncommon location and the size is larger than in previously reported cases of benign CS.

#### Abbreviations

Chondroid syringoma (CS), Fine needle aspiration cytology (FNAC)

#### Competing interests

Authors do not have any competing interest.

#### Authors' contribution

Dr. Sushna Maharjan reported, and studied the case thoroughly; drafted the manuscript, and revised it. Dr. Mamata Tiwari, and Dr. Sabin Ranabhat critically revised the manuscript. Final manuscript was approved by all authors.

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