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ABSTRACT: Metaplastic carcinoma of breastrefers to a heterogeneous group of neoplasms characterized by intimateadmixture of adenocarcinoma with dominant area of spindle cell, squamous celland/or mesenchymal differentiation. They constitute the rarest histologicalvariant of invasive ductal carcinoma. Adenosquamous carcinoma of breast is raretumours included in the last edition of WHO classification of breast cancers, as a subtype of metaplastic carcinoma.

It constitutes of 0. 3% of all breastcancers. Here, we report a case of adenosquamous variant of metaplasticcarcinoma of breast in a 61 years old female who presented with a lump in theright breast.

The present case highlights that although metaplastic carcinomaof breast is rare, we should be aware of this possibility and include it in thedifferential diagnosis whenever appropriate. Keywords: Metaplastic, Adenosquamous, Carcinoma. IntroductionMetaplastic carcinoma refers to a heterogenous group of neoplasmcharacterized by an intimate admixture of adenocarcinoma with dominant areas ofspindle, squamous and/or mesenchymal differentiation, accounting for less than1% of all invasive carcinomas. 1 Adenosquamous carcinoma of breast are rare tumour included in WHOclassification of breast cancer, as a subtype of metaplastic carcinoma, constituting 0.

3% of all breast carcinomas. 2, 3 Adenosquamous carcinomais characterized by areas of well-developed tubule/gland frormation intimatelyadmixed with widely dispersed solid nests of squamous differentiation4. Adenosquamous carcinoma are divided into low grade and high grade. Low grade adenosquamous carcinoma has less nuclear anaplasia, do notmetastasize and have an overall good prognosis3. In contrast, highgrade adenosquamous are quite aggrresive and show lymph node metastasis at thetime of diagnosis.

Case ReportA 61 years old female, presented with a lump in the right breastfor 8 months. Physical examination revealed a lump which was hard, measured 6x5cm with nipple retraction and palpable ipsilateral axillary lymph nodes. Thecontralateral breast and axillary nodes were normal. Sonomammography revealed an ill-defined lesion in the upper rightquadrant with axillary lymphadenopathy (figure 1). Trucut biopsy confirmed thediagnosis of invasive ductal carcinoma NOS following which she underwentmodified radical mastectomy and the specimen was sent for histopathologicalexamination. On gross examination, radical mastectomy specimen measured 15x13x4cm. Cut surface revealed a pearly white lesion in upper outer quadrant (figure2). Microscopic examination showed foci of architecturally confluentglandular formation with an adjacent desmoplastic stroma (figure 3).

Also seen were tumor composed of nests, jagged islands of mild to moderately pleomorphic cells with a squamoidappearance (figure 4). There were foci of keratin pearl formation with a fewdyskeratotic cells. Ductal carcinoma insitu with solid and cribriform growthpattern was also seen. The diagnosis of adenosquamous carcinoma was given. The immunohistochemical staining showed triple negative for ER, PR, and Her2 neu expression and showed strong positive for cytokeratin. DiscussionAdenosquamous breast carcinoma was first described by Rosen in 1987and later in a follow up study by Van Hoeven in1993. 5 Adenosquamouscarcinoma presents as a palpable mass and has been found in women whose ageranges from 31 to 87 years.

3Adeosquamous carcinoma is difficult to diagnose from other benign andinvasive tumors on noninvasive investigations. On imaging only the benignnature of the lesion is observed. These tumors do no exhibit much cytologicalatypia, despite the infiltrative nature of these tumors, so making it difficultto diagnose on cytology. On trucut biopsy, the infiltrative nature of the tumor cannot beobserved. So, diagnosis is usually made histologically on excision biopsyspecimen6.

At gross examination, adenosquamous carcinoma tends todisplay a stellate or infiltrative configuration, with poorly defined borders. Microscopically, the carcinomatous component is characterized by smallglandular structures, with rounded rather than angulated contours, and solidcords of epithelial cells, which may contain squamous cells, squamous pearls orsquamous nests formation. The invasive neoplastic component typically showslong, slender, extensions at the periphery and infiltrate in between the normalbreast structures, features which have been associated with inadequate localexcision and high incidence of recurrence. Adenosquamous carcinoma is consistently negative for ER, PRHer2-neu expression, hence may be a useful diagnostic tool. Myoepithelial andcytokeratin stains are positive, but the extent of staining is highly variable. SMA, p63, calponin and CD10 show variable degree of positivity. 2, 7The study conducted by Khatib et al.

, who reviewed one case oflow-grade adenosquamous carcinoma of breast, showed triple negative for ER, PR, Her2 neu expression. SMA and calponin were positive and highlighted themyoepithelial cells, but p63 showed focal positivity. 8 Similarly, our case showed triple negative for ER, PR, Her2 neu expression but showedstrong positivity for cytokeratin expression. The study conducted by Geyer et al.

, who observed five cases ofadenosquamous carcinoma of breast, all of them belonged to 54 to 76 years ofage. 2 Similarly, our case was 61 years old. The overall prognosis of adenosquamous carcinoma is good but it hasa tendency to locally recur depending on the adequacy of local excision.

So, complete local excision or mastectomy is usually recommended. Adenosquamouscarcinoma should always be differentiated from tubular carcinoma, infiltratingsyringomatous adenoma of the nipple and adenomyoepithelioma. ConclusionAdenosquamous carcinoma is a rare entity, has risk of localrecurrence after incomplete excision and has low metastatic potential. Inconclusion, adenosquamous carcinoma should always be kept in the differentialdiagnosis whenever appropriate.