BACKGROUND: Syringomatous tumour of the nipple (STN), also called syringomatous adenoma, is a rare benign infiltrative neoplasm that may be confused with low-grade breast carcinomas.

METHODS: A 35-year-old female presented with discomfort and asymmetry of her left nipple that she had noticed for several years. There was no history of discharge from the nipple. On physical examination, the nipple was normal. Within the areolar region, adjacent to the nipple, an ill-defined, indurated, non-tender subcutaneous 10 cm nodule was palpated. The results of mammography, ultrasonography and RMI indicated that the lesion was not a malignant tumor. An initial dermal biopsy followed by complete excision of the nipple and part of the areola was performed.

RESULTS: On gross examination, the size of the specimen was 7x5,5x4,5cm. Cut section showed a diffuse white tumor measured 5,5 x 3,5 cm. The histological examination showed infiltrating epithelial tumor composed of small, irregular duct-like structures within a sclerosing stroma. The duct-like structures were solitary, well-spaced and lined by two layers of cuboidal cells. The epithelial cells were bland and they did not display any significant pleomorphism, mitotic activity or necrosis. The tumor cells infiltrated around and within the smooth muscle of the areola. In the upper part of the tumor, multiple squamous epithelial-lined cysts containing non-compact keratinous material were noted. Immunohistochemistry (IHC) showed that the glands possessed a peripheral myoepithelial cell layer, positive for smooth muscle actin (SMA), p63 and CK5-6. Based on these histologic and IHC findings, the final diagnosis of STN was established.

CONCLUSION: The infiltrative growth of STN can be mistaken for tubular carcinoma or an adenosquamous carcinoma. STN is a tumor with potential for local recurrence but no metastatic behavior. Resection with wide margins is the recommended treatment.