

# Secretory Breast Carcinoma in A Girl - A Case Report

## GENÇ BİR KIZDA SEKRETUVAR MEME KANSERİ – OLGU SUNUMU

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### Summary

**Objective:** To review secretory breast carcinoma, which is a rare condition in a girl.

**Institution:** Ankara Oncology Hospital

**Case Report:** A 13 year-old girl with secretory carcinoma is presented. Modified radical mastectomy was performed. Tumor's maximum diameter was 7 cm, but there were no axillary metastasis. Tumor was both estrogen (ER) and progesteron receptors (PR) negative.

**Conclusion:** The choice of therapy for secretory breast carcinoma, a rare condition in the literature, should be the combination of modified radical mastectomy, chemotherapy and irradiation.

**Key Words:** Secretory breast carcinoma

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### Özet

**Amaç:** Nadir görülen sekretuvar meme karsinomalı genç bir kız hastanın incelenmesi

**Çalışmanın Yapıldığı Yer:** Ankara Onkoloji Hastanesi

**Olgu Sunumu:** Sunumunu yaptığımız hastamız 13 yaşında bir kız çocuğuydu. Hastaya modifiye radikal mastektomi uygulandı. Tümörün maksimum çapı 7 cm idi ancak aksiller lenf nodu tutulumu yoktu. Tümör ER –PR negatifti.

**Sonuç:** Literatürde nadir bildirilen sekretuvar karsinomlu hastalarda seçilecek tedavi modifiye radikal mastektomi kemoterapi ve radyoterapi kombinasyonu olmalıdır.

**Anahtar Kelimeler:** Sekretuvar meme kanseri

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The first secretory carcinoma was published in 1966 by Mc. Divitt and Stewart. They reported seven tumors occurred in children whose ages are ranging from 3 to 15. So that, by the young age of the patients, authors suggested the designation of juvenil carcinoma (1). Subsequently, many cases and isolated case report noted the occurrence of this lesion in a much wider age range and as well as development of axillary node and rare distant metastasis (2-4). But in many reports, tumor occurs relatively more frequently during the first three decades of life. It is because of that designation of juvenil carcinomas has been replaced by the term of secretory carcinoma (4). The age of the patients range from 3 to 87, with median age 25 (5-9). Over 60% of the patients were older than 20 years. About one third of the reported cases were women at the age of 30 or older (4). Also, several cases

have been reported in both prepubertal and adult males (10, 11).

Most patients present with a breast mass. Six cases of secretory carcinoma have occurred in association with juvenile papillomatosis (12).

### Case Report

A 13 year-old patient was referred to Ankara Oncology Hospital. On physical examination, there was a 6×5 cm mass almost filling the whole left breast. In the right breast, both axillas and both supraclavicular areas were normal.

**Gross pathologic features:** First biopsy was performed. The 3 tissue samples were removed. The largest one was 2×1, 5×1 cm, smallest one was 1×0, 5×0,3 cm and they were irregular in shape and their colour were brown to grey. The his-

tologic diagnosis was secretory carcinoma, ER-PR negative, actin negative, S100 positive and CEA negative. Then, modified radical mastectomy was performed. In the mastectomy material, there was 7×5×4 cm mass located in inferior medial and lateral quadrants. Tumor had hemorrhagic areas and multinodular pattern. A total of 33 axillary nodes were removed.

**Microscopic features:** On HE sections tumor cells proliferated as a densely cellular, solid mass composed of cells separated by fibrous septae on with pushing growth margin (Figure 1). The central portion of the tumor had papillary pattern (Figure 2). The neoplastic cells lack significant atypism or mitotic activity. The cells had an appearance of bulging with secretions, vacuolated with secretory droplets. Nuclei were round to oval with small and generally inconspicuous nucleoli. Secretory material

Figure 1.

Figure 2.

Figure 3.

was PAS positive, diastase resistant and Alcian blue positive (Figure 3). Immunohistochemically actin was negative, ER and PR were both negative, S100 was positive and CEA was negative.

### Discussion

Approximately 100 female secretory carcinoma cases have been reported (13). Although this tumor was initially termed juvenil carcinoma as the patients were all children and adolescent females, subsequent reports demonstrated that it occurs in females of all ages. Our case was 13 years old and female. But moreover, to date only five males with this tumor have been reported. Judging from the small number of reported cases, the behavior of this tumor appears to be age dependent (14). The tumor seems to have limited aggressiveness when it occurs in patients younger than 20 years. In older patients the behavior of this tumor more closely parallels that of regular infiltrating ductal carcinoma (13). In our case depending the tumor size (max. diameter of 7 cm) there were no axillary metastasis. The seven youngsters in Mc.Divitt and Stewart's report were all alive and well 3-15 years after the initial diagnosis, their surgical excision ranged from local resection and simple mastectomy to radical mastectomy (15). Three of the five patients who were younger than 20 years in Tavasoli and Norris's report had local excision (two) or partial mastectomy (one); these patients are alive 0.5, 1.75 and 10 years after the diagnosis without evidence of recurrent or metastatic disease (16). In

Yıldırım et al. cases a 11 year-old boy with a 2 cm mass underwent modified radical mastectomy. One of the 18 removed lymph nodes had metastatic involvement. After than irradiation and chemotherapy was administered. There were no local recurrence or distant metastasis in the follow-up period of 24 months (10).

Two more recent reports also suggest that longer follow-up on patients with secretory carcinoma is needed to the biological behavior of the neoplasm (14).

When secretory carcinoma occurs in patients younger than 40 years of age wide local excision is advocated as the initial treatment (14). Hormonal receptor assays for estrogen and progesterone have been performed in a few cases and found to be negative in our case.

As mentioned above there was no standart protocale therapy about secretory carcinoma. In our case because of the tumor size and negative ER-PR status, we performed modified radical mastectomy, after then she had irradiation and chemotherapy.

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