

ETV6-NTRK3 Gene fusion positive Secretory carcinoma Breast in a two year seven month old child with metastatic axillary lymph node: A case report and Review of literature

RESHMA BALACHANDRAN¹, SAJID QURESHI¹, GARVIT CHITKARA¹, TANUJA SHET², OMSHREE SHETTY², and Sudeep Gupta²

¹Tata Memorial Centre Department of Surgical Oncology

²Tata Memorial Centre

December 30, 2022

Abstract

Abstract Secretory breast carcinoma (SBC) is an exceptionally rare type of breast carcinoma accounting for less than 0.15% of all breast cancers and with varied presentations. There is a lack of consensus regarding the exact management and there is evolving role of targeted therapy with successful treatment outcomes. We present a case of SBC in a two year seven month old child with axillary lymph node (ALN) metastasis, oestrogen receptor (ER) positivity and the characteristic ETV6-NTRK3 fusion gene expression. She was managed by surgery followed by use of tamoxifen and targeted agent Larotrectinib. Chemoradiotherapy was avoided considering the age and doubtful benefit. We also summarise the pattern of presentation in SBC, treatment options and follow up which would aid in making treatment decisions in clinical practice. Keywords: Breast, Secretory carcinoma, ETV6-NTRK3 fusion, Larotrectinib

CASE REPORT AND REVIEW OF LITERATURE

TITLE: ETV6-NTRK3 Gene fusion positive Secretory carcinoma Breast in a two year seven month old child with metastatic axillary lymph node: A case report and Review of literature

Reshma R Balachandran¹, Sajid S Qureshi^{1*}, Garvit Chitkara², Tanuja Shet³, Omsree Shetty⁴, Sudeep Gupta⁵

¹Department of Surgical Oncology, Division of Pediatric Surgical Oncology, Tata Memorial Hospital and Homi Bhabha National Institute (HBNI), Mumbai, Maharashtra 400012, India

²Department of Surgical Oncology, Division of Breast Oncology, Tata Memorial Hospital and Homi Bhabha National Institute (HBNI), Mumbai, Maharashtra 400012, India

³Department of Surgical Pathology, Tata Memorial Hospital and Homi Bhabha National Institute (HBNI), Mumbai, Maharashtra 400012, India

⁴Department of Molecular pathology and Translational medicine, Tata Memorial Hospital and Homi Bhabha National Institute (HBNI), Mumbai, Maharashtra 400012, India

⁵Department of Medical Oncology, Tata Memorial Hospital and Homi Bhabha National Institute (HBNI), Mumbai, Maharashtra 400012, India

*Corresponding author:

Sajid S Qureshi

Professor and Head

Division of Pediatric Surgical Oncology

Department of Surgical Oncology

Tata Memorial Hospital and Homi Bhabha National Institute(HBNI), Mumbai

Maharashtra 400012

India

sajidshafiques@hotmail.com

Email address of other authors:

1. Reshma R Balachandran resh.bala12@gmail.com
2. Sajid S Qureshi sajidshafiques@hotmail.com
3. Garvit chitkara garvit22@gmail.com
4. Tanuja Shet tanujashet5@gmail.com
5. Omshree Shetty omshreens@gmail.com

Source of funding: None

Conflict of Interest : None

Consent to participate: NA

Ethical Approval and/or Institutional Review Board (IRB) Approval : NA

Covering letter:

To,

The Editorial Team,

We report an extremely rare case of Secretory carcinoma breast in the Youngest patient ever reported in literature; at the age of a two-year seven-month old girl child. We provide the details of clinical presentation of the disease, how to diagnose the same, and also provide a guide to management of the same. We hope this rare case would be of much interest to your readership and you would consider this manuscript for publication in your reputed journal

Thanking you in advance

Sincerely,

Sajid S Qureshi

Corresponding author

Hosted file

Pre-evaluation (965) - after correction.docx available at <https://authorea.com/users/571134/articles/616476-etv6-ntrk3-gene-fusion-positive-secretory-carcinoma-breast-in-a-two-year-seven-month-old-child-with-metastatic-axillary-lymph-node-a-case-report-and-review-of-literature>

