

### Tool for evaluating the methodological quality of case reports and case series

Murad et al. BMJ Evid Based Med. 2018

Landman Y, Ilouze M, Wein S et al. Rapid Response to Larotrectinib (LOXO-101) in an Adult Chemotherapy-Naive Patients With Advanced Triple-Negative Secretary Breast Cancer Expressing ETV6-NTRK3 Fusion. Clin Breast Cancer. 2018 Jun;18(3):e267-e270. doi: 10.1016/j.clbc.2017.11.017.

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Ziegler DS, Wong M, Mayoh C et al. Brief Report: Potent clinical and radiological response to larotrectinib in TRK fusion-driven high-grade glioma. doi: 10.1038/s41416-018-0251-2.

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Wong DD, Vargas AC, Bonar F et al. NTRK-rearranged mesenchymal tumours: diagnostic challenges, morphological patterns and proposed testing algorithm. doi: 10.1016/j.pathol.2020.02.004.

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Hochmair MJ, Setinek U, Krenbek D et al. Rapid Clinical and Radiologic Responses With Larotrectinib Treatment in a Patient With TRK-Fusion-Positive Metastatic Lung Cancer. doi: 10.1016/j.clc.2019.11.010.

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Alharbi M, Mobark NA, Balbaid AAO, et al. Regression of ETV6-NTRK3 Infantile Glioblastoma After First-Line Treatment With Larotrectinib. JCO Precis Oncol. 2020 Jun 30;4:PO.20.00017. doi: 10.1200/PO.20.00017.

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Mayr L, Guntner AS, Madlener S et al. Cerebrospinal Fluid Penetration and Combination Therapy of Entrectinib for Disseminated ROS1/NTRK-Fusion Positive Pediatric High-Grade Glioma. J Pers Med. 2020 Dec 18;10(4):290. doi: 10.3390/jpm10040290.

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Walter AW, Kandula VVR, Shah N. Larotrectinib imaging response in low-grade glioma. *Pediatr Blood Cancer*. 2020 Jan;67(1):e28002. doi: 10.1002/pbc.28002.

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Salame H, Mckey R, Ballout et al. The First Reported Case of Neurotrophic Tyrosine Receptor Kinase Fusion-Positive Thymoma Treated Successfully With Entrectinib. Cureus. 2021 Dec 21;13(12):e20588. doi: 10.7759/cureus.20588.

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Zhang L, Liu H, Tian Y et al. A novel NCOR2-NTRK1 fusion detected in a patient of lung adenocarcinoma and response to larotrectinib: a case report. BMC Pulm Med. 2021 Apr 17;21(1):125. doi: 10.1186/s12890-021-01490-x.

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Gupta M, Sherrow C, Krone ME et al. Targeting the NTRK Fusion Gene in Pancreatic Acinar Cell Carcinoma: A Case Report and Review of the Literature. J Natl Compr Canc Netw. 2021 Jan 6;19(1):10-15. doi: 10.6004/jnccn.2020.7641.

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Percy C, Schubert T, Galant C et al. Larotrectinib in a NTRK-rearranged soft tissue sarcoma in the neoadjuvant setting: A case report. Clin Case Rep. 2021 Feb 9;9(3):1694-1698. doi: 10.1002/ccr3.3878.

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Munkhdelger J, Shimooka T, Koyama Y et al. Basaloid Squamous Cell Carcinoma of the Uterine Cervix: Report of a Case With Molecular Analysis. Int J Surg Pathol. 2021 Oct;29(7):770-774. doi: 10.1177/1066896921997132.

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Pircher M, Briner HR, Bonomo M et al. Mixed response and mechanisms of resistance to larotrectinib in metastatic carcinoma ex pleomorphic adenoma of the parotid harboring an NTRK2 fusion: A case report. Medicine (Baltimore). 2021 Jan 29;100(4):e24463. doi: 10.1097/MD.00000000000024463.

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Pitoia F. Complete response to larotrectinib treatment in a patient with papillary thyroid cancer harboring an ETV6-NTRK3 gene fusion. Clin Case Rep. 2021 Feb 20;9(4):1905-1912. doi: 10.1002/ccr3.3900.

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Shepherd DJ, Miller TE, Forst DA et al. Mosaicism for Receptor Tyrosine Kinase Activation in a Glioblastoma Involving Both PDGFRA Amplification and NTRK2 Fusion. *Oncologist*. 2021 Nov;26(11):919-924. doi: 10.1002/onco.13835.

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Wagner F, Greim R, Krebs K et al. Characterization of an ETV6-NTRK3 rearrangement with unusual, but highly significant FISH signal pattern in a secretory carcinoma of the salivary gland: a case report. Diagn Pathol. 2021 Aug 9;16(1):73. doi: 10.1186/s13000-021-01133-z.

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Boyer, J.; Birzu, C.; Bielle et al. A Dramatic Response of STRN-NTRK-Fused Malignant Glioneuronal Tumor to Larotrectinib in Adult. Neuro Oncol 2021, 23, 1200–1202, doi:10.1093/neuonc/noab080.

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Corral Sánchez MD, Galán Gómez V, Sastre Urgelles A et al. Treatment of infantile fibrosarcoma associated to an abdominal aortic aneurysm with larotrectinib: a case report. doi: 10.1080/08880018.2021.1889730.

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Goh, X.N.; Seng, M.S.-F.; Loh, A.H.P et al. Larotrectinib Followed by Selitrectinib in a Novel DCTN1-NTRK1 Fusion Undifferentiated Pleomorphic Sarcoma. J Oncol Pharm Pract 2021, 27, 485–489, doi:10.1177/1078155220938849.

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Carter-Febres M, Schneller N, Fair D, Solomon D et al. Adjuvant Maintenance Larotrectinib Therapy in 2 Children With NTRK Fusion-positive High-grade Cancers. J Pediatr Hematol Oncol. 2021 Oct 1;43(7):e987-e990. doi: 10.1097/MPH.0000000000001983.

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Slomovic A, Amaral T, Lobko I, Siegel DN et al. Comment on: A newborn with a large NTRK fusion positive infantile fibrosarcoma successfully treated with larotrectinib. *Pediatr Blood Cancer*. 2021 Jun;68(6):e28953. doi: 10.1002/pbc.28953.

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Waters TW, Moore SA, Sato Y, et al. Refractory infantile high-grade glioma containing TRK-fusion responds to larotrectinib. *Pediatr Blood Cancer*. 2021 May;68(5):e28868. doi: 10.1002/pbc.28868.

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Endo Y, Watanabe T, Saito M et al. A rare case of recurrent ovarian cancer with TPM3-NTRK1 gene rearrangement: A case report. Mol Clin Oncol. 2022 Apr;16(4):90. doi: 10.3892/mco.2022.2523.

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Ernst MS, Lysack JT, Hycza MD et al. TRK Inhibition with Entrectinib in Metastatic Salivary Secretory Carcinoma (SC): A Case Report. Curr Oncol. 2022 May 31;29(6):3933-3939. doi: 10.3390/curroncol29060314.

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Recine F, De Vita A, Fausti V et al. Case Report: Adult NTRK-Rearranged Spindle Cell Neoplasm: Early Tumor Shrinkage in a Case With Bone and Visceral Metastases Treated With Targeted Therapy. Front Oncol. 2022 Jan 7;11:740676. doi: 10.3389/fonc.2021.740676.

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Bill R, Deschler DG, Pittet MJ et al. Diagnostic challenges and successful organ-preserving therapy in a case of secretory carcinoma of minor salivary glands. doi: 10.1002/cnr2.1491.

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Reporting	8. Is the case(s) described with sufficient details to allow other investigators to replicate the research or to allow practitioners make inferences related to their own practice?	1

### Tool for evaluating the methodological quality of case reports and case series

Murad et al. BMJ Evid Based Med. 2018

Bargas, S.; Mc Leer, A.; Mondet, et al. An Impressive Response with Larotrectinib in a Patient with a Papillary Thyroid Carcinoma Harboring an SQSTM1-NTRK1 Fusion. doi:10.1530/EJE-21-0509.

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Kasi, P.M.; Afghan, M.K.; Bellizzi, A.M.; et al. Larotrectinib in Mismatch-Repair-Deficient TRK Fusion-Positive Metastatic Colon Cancer After Progression on Immunotherapy.[doi:10.7759/cureus.26648](https://doi.org/10.7759/cureus.26648).

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Saliba M, Mohanty AS, Ho AL et al. Secretory Carcinoma of the Thyroid in a 49-Year-Old Man Treated with Larotrectinib: Protracted Clinical Course of Disease Despite the High-Grade Histologic Features. doi: 10.1007/s12105-021-01386-6.

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Lapeña LM, Caldas MCS, Ramírez C et al. Larotrectinib as an Effective Therapy in Congenital Infantile Fibrosarcoma: Report of Two Cases. doi: 10.1055/s-0042-1748866.

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Groussin L, Theodon H, Bessiene L, et al. Redifferentiating Effect of Larotrectinib in NTRK-Rearranged Advanced Radioactive-Iodine Refractory Thyroid Cancer. Thyroid. 2022 May;32(5):594-598. doi: 10.1089/thy.2021.0524.

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Grogan PT, Deming DA, Helgager J, et al. Entrectinib demonstrates prolonged efficacy in an adult case of radiation-refractory NTRK fusion glioblastoma. Neurooncol Adv. 2022 Apr 13;4(1):vdac046. doi: 10.1093/noajnl/vdac046.

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Kobayashi H, Makise N, Shinozaki-Ushiku A, et al. Dramatic response to entrectinib in a patient with malignant peripheral nerve sheath tumor harboring novel SNRNP70-NTRK3 fusion gene. Genes Chromosomes Cancer. 2022 Jul 30. doi: 10.1002/gcc.23089.

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König D, Hench J, Frank S, et al. Larotrectinib Response in NTRK3 Fusion-Driven Diffuse High-Grade Glioma. Pharmacology. 2022;107(7-8):433-438. doi: 10.1159/000524399.

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Olsen MR, Denu RA, Lyon JB, Gulliver JM et al. Undifferentiated and Unresectable Sarcoma With NTRK3-Fusion in a Pediatric Patient Treated With Larotrectinib and Proton Beam Radiotherapy. J Pediatr Hematol Oncol. 2022 Apr 1;44(3):e770-e774. doi: 10.1097/MPH.0000000000002358.

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Mañano BM, Dos Reis MB, Moreno DA et al. A Unique Case Report of Infant-Type Hemispheric Glioma (Gliosarcoma Subtype) with TPR-NTRK1 Fusion Treated with Larotrectinib. Pathobiology. 2022;89(3):178-185. doi: 10.1159/000521253.

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Di Ruscio V, Carai A, Del Baldo G, Vinci M, Cacchione A, Miele E, Rossi S, Antonelli M, Barresi S, Caulo M, Colafati GS, Mastronuzzi A. Molecular Landscape in Infant High-Grade Gliomas: A Single Center Experience. *Diagnostics (Basel)*. 2022 Feb 1;12(2):372. doi: 10.3390/diagnostics12020372.

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