

# Retinoblastoma treatment

The earliest treatments of [retinoblastoma](#) included [enucleation](#), external and local [radiotherapy](#), local laser, [cryotherapy](#) and [thermotherapy](#), and systemic [chemotherapy](#). The systemic chemotherapy caused many systemic side effects, and the radiation caused an increased risk of secondary malignancies locally and globally as well as midface hypoplasia <sup>1)</sup>.

[Intra-arterial chemotherapy](#) (IAC) has become one of the most important pillars in [retinoblastoma](#) (Rb) management. It allows for targeted delivery of [chemotherapy](#) by superselective [catheterization](#) of the [ophthalmic artery](#), thus, reducing systemic toxicity. As in most neurovascular procedures, IAC has traditionally been performed through [transfemoral](#) access. However, recent publications have spurred the use of the [trans-radial](#) route for [neuroendovascular procedures](#) due to its lower complication rates and higher patient satisfaction. They presents the first case series in the literature on the technique, safety, and feasibility of IAC via the trans-radial route in the pediatric population.

Al Saiegh et al. retrospectively analyzed the prospectively maintained [database](#) and present the technique and initial experience from 5 consecutive pediatric patients aged between 3 and 15 years who underwent 10 trans-radial IAC treatments.

All IACs were performed successfully. Two patients had repeat IACs through the same wrist. There were no thromboembolic events or access site complications, such as hand ischemia or hematoma. All patients were discharged home the same day of the procedure.

This case series demonstrates the safety and feasibility of [transradial](#) IAC in pediatric patients with Rb. As more experience is gained with the transradial route for neurovascular procedures in adults, it may become the preferred route in some pediatric patients as well <sup>2)</sup>.

## Melphalan for Retinoblastoma

<sup>1)</sup>

Monroy JE, Orbach DB, VanderVeen D. Complications of intra-arterial chemotherapy for retinoblastoma. Semin Ophthalmol. 2014 Sep-Nov;29(5-6):429-33. doi: 10.3109/08820538.2014.959188. PMID: 25325870.

<sup>2)</sup>

Al Saiegh F, Chalouhi N, Sweid A, Mazza J, Mouchtouris N, Khanna O, Tjoumakaris S, Gooch R, Shields CL, Rosenwasser R, Jabbour P. Intra-arterial chemotherapy for retinoblastoma via the transradial route: Technique, feasibility, and case series. Clin Neurol Neurosurg. 2020 Apr 6;194:105824. doi: 10.1016/j.clineuro.2020.105824. [Epub ahead of print] PubMed PMID: 32283473.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

[https://neurosurgerywiki.com/wiki/doku.php?id=retinoblastoma\\_treatment](https://neurosurgerywiki.com/wiki/doku.php?id=retinoblastoma_treatment)

Last update: **2024/06/07 02:53**



