

## Heart biopsy in follow-up of patients after transplantation

 Paula Filar\*,  
 Milka Grubišić,  
 Dragana Jurčić

Dubrava University Hospital,  
Zagreb, Croatia

**KEYWORDS:** biopsy, heart transplantation.

**CITATION:** *Cardiol Croat.* 2024;19(1-2):44. | <https://doi.org/10.15836/ccar2024.44>

**\*ADDRESS FOR CORRESPONDENCE:** Paula Filar, Klinička bolnica Dubrava, Avenija Gojka Šuška 6, HR-10000, Zagreb, Croatia. / Phone: +385-99-6404-322 / E-mail: [paula.filar@hotmail.com](mailto:paula.filar@hotmail.com)

**ORCID:** Paula Filar, <https://orcid.org/0009-0006-6077-1802> • Milka Grubišić, <https://orcid.org/0000-0003-2092-5396>  
Dragana Jurčić, <https://orcid.org/0000-0003-2926-1258>

Heart transplantation is a method of treatment for patients in the last stage of heart disease for whom pharmacotherapy or other surgical procedures have been exhausted. Monitoring such a group of patients is an extremely complex process that includes a series of preoperative and postoperative procedures that monitor the occurrence of possible unwanted complications during treatment. A heart biopsy is routinely performed for the purpose of early detection of rejection of the transplanted organ, which may be asymptomatic in its beginnings. The results of the biopsy are classified into four different categories (ISHLT grade) that guide us in the further monitoring and treatment of the patient. Biopsy findings may require the use of higher doses of immunosuppressive therapy (i.e., the use of corticosteroids) with increased isolation measures. It is performed routinely once a week for the next four weeks after transplantation with the help of a biopsy device under local anesthesia. From the fourth postoperative week, the biopsy is performed once every two weeks until the end of the tenth postoperative week, and then once a month for the first six months. From the seventh postoperative month to the second year, a biopsy is performed every three months. From the second to the third year, the biopsy is performed once a year along with coronary angiography. It is important to note that the time and frequency of performing a biopsy are individual and may change depending on the pathohistological findings of the sample. After a successful heart transplant, it is necessary to take extra precautions to prevent complications. Transplanted patients belong to a high-risk group whose care requires specific knowledge and skills. A multidisciplinary approach is important for the success of the postoperative course. We consider myocardial biopsy to be the most reliable method for evaluating the results of graft acceptance or rejection. It is used as the "gold standard" in monitoring the postoperative course after heart transplantation.<sup>1,2</sup>

RECEIVED:  
September 30, 2023

ACCEPTED:  
October 7, 2023



### LITERATURE

- Ahmed T, Goyal A. Endomyocardial Biopsy. 2023 May 8. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. PMID: 32491529. **PubMed:** <https://pubmed.ncbi.nlm.nih.gov/32491529/>
- Šabić D, Šimunaci S., Vuković Lj. Specifičnosti zdravstvene njege bolesnika nakon transplantacije srca, *Snaga sestriinstva*. 2017;(2):14-22.