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An observation period of 6-8 hrs after native kidney biopsy seems to be safe!

Percutaneous renal biopsy is considered to be the gold standard for the diagnosis of many kidney diseases. A new NDT study [1] shows that it does not lead to serious complications and that an observation period of 6-8 hrs after kidney biopsy can be considered to be safe and sufficient. So far, many hospitals observe their patients up to 24 hrs post-biopsy. This increases the costs, but does not go along with any benefits.

A retrospective study [1] performed by Julian Gary Abuelo, Alpert medical School of Brown University, Providence, RI, USA, which was published on 4th August, 2019, in NDT, the official journal of the ERA-EDTA showed that an observation period of 6-8 hrs after kidney biopsy was safe. A total 1,204 percutaneous native kidney biopsies were analysed in this single-center study, all of them had been performed between July 1987 and June 2018.

Up to now, an in-hospital observation period of 24hrs after kidney biopsy is considered optimal, because there is the danger that serious post-biopsy bleedings might occur. But is this long observation period really necessary? As the new study demonstrated, it is not. Altogether, 50 complications occurred after kidney biopsies had been performed, and only 10 of these occurred after 8 hrs after the biopsy. Among them were haemoglobin decrease of 1 g/dl or more, gross haematuria, flank pain, pain at the biopsy site. Some of them had been treated, after the patients presented themselves in the center, one of the ten patients visited the emergency department twice. But as the author of the study emphasises all these complications that occurred after more than 8 hrs caused little or no harm and he draws the conclusion that a 6-8 hrs observation period is safe and sufficient.

To confirm his findings Julian Gary Abuelo performed a meta-analysis of 14 other studies with 3,660 outpatient percutaneous kidney biopsies carried out with post-biopsy observation times of 4–8 h. The analysis showed that 129 patients experienced complications within the observation period of up to 8 hrs and were hospitalized. Of the 3,531 patients who were released 8 hrs after the biopsy, 8 required admission

between 12 hrs and 5 days after the kidney biopsy for complications. In 6 of these patients the complications occurred after more than 24 hrs, which means that they would already have been released, even if they had been observed for a full day. Furthermore, none of the eight patients with complications seems to be harmed by the early hospital release.

“These findings are important” explains ERA-EDTA Council Member Dr Maria Jose Soler Romeo, Barcelona/Spain. “First, they show that native kidney biopsy goes along with relatively low complication rate and can be considered to be safe. Apart from that, the study has health economic implications: An observation period of 24 hrs is not necessary. The reduction from 24 to 8 hrs helps to reduce the costs of this examination, which is often needed for the correct diagnosis of a kidney diseases, e.g. nephrotic syndrome and glomerular disease.”

[1] Julian Gary Abuelo. How long should patients be observed after percutaneous kidney biopsies? *Nephrology Dialysis Transplantation* 2019. <https://doi.org/10.1093/ndt/gfz157>

About ERA-EDTA

With more than 7,000 active members, the ERA-EDTA is one of the biggest nephrology associations worldwide leading European nephrology and one of the most important European Medical Associations. It organises annual congresses and a Scientific Education Interactive Day (SEID), it produces guidelines, it collects data and performs epidemiological studies through its Registry. It supports fellowships and research projects. Its publications are NDT and CKJ (this last journal is Open Access). The ERA-EDTA also has an online Educational platform: the European Nephrology Portal (ENP) which includes NDT-Educational@ENP. The 2020 Congress will be held June 6-9 in Milan (Italy). Visit the booth to receive more information!

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