

Kidney transplants less successful at night

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Kidney transplants should be carried out during the day if possible. At least this is the conclusion suggested by a survey just published by urologists and internists at the University of Bonn (*Transplantation Proceedings*, vol. 40, p. 1341 ff.). Hence operations carried out at night require a further operation more than twice as often as other operations. Moreover, the risk of premature failure of the transplant is higher with operations taking place at night. The reason is probably that the surgeon is more alert and focused during the day. Particularly with a complicated procedure such as a transplant, surgical skill is a critical factor for success. Still, currently every third kidney transplant is performed at night, as donor organs should be as fresh as possible.

The medics from Dr. Guido Fechner and Professor Stefan Müller's Bonn team scrutinised a total of 260 kidney transplants. Over 60 per cent had been carried out during the day, the remainder between eight in the evening and eight o'clock in the morning. More than 16 per cent of all the 'night kidneys' had to be operated on a second time in the month following the transplant due to surgical complications. With the 'day kidneys', the complications rate was significantly less, being over six per cent.

On average transplanted kidneys last nine years, but there are also transplants that still work well after more than 20 years. The time when the operation took place here too seems to be a critical factor. 'For "day kidneys" there is a higher than 90 per cent chance that they will function flawlessly even five years after the transplant,' Dr. Guido Fechner explains. 'With "night kidneys" the figure is only 80 per cent.'

The reason presumed for this is that kidney transplants are comparatively complicated procedures. Accordingly, they require a brain that is alert. However, the donated organs are often transplanted during the night shift. 'It was long believed that kidneys had to be as fresh as possible, at all cost, for the transplant to be successful,' Guido Fechner says. It is currently perceived as ideal if the organ is reinserted 18 hours after its removal at the latest. 'Rescheduling a kidney transplant within this time frame, say from 5 a.m. to 8 a.m., without the transplant suffering, is definitely feasible,' he emphasises. 'Instead operations are performed as early as possible, even if that means the urologist has to work at night.'

An alternative is a living kidney donation during which the kidney is taken from a living donor and is immediately inserted into the recipient. This always happens during the day.

Source: University of Bonn

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