

TRANSPLANTATION

Pancreas–kidney transplantation may reduce fracture risk in men with type 1 diabetes mellitus

Type 1 diabetes mellitus (T1DM) and end-stage renal disease (ESRD) are associated with an increased risk of fractures; however, therapeutic agents to prevent fractures in patients with these disorders are lacking. A new study published in *Kidney International* reports an association between simultaneous pancreas–kidney transplantation and reduced fracture risk compared with kidney transplantation alone among men with T1DM and ESRD.

Lucas Nikkel and colleagues hypothesized that simultaneous pancreas–kidney transplantation would lower fracture risk to a greater extent than kidney transplantation alone on the basis of data suggesting that the adverse metabolic and clinical outcomes associated with T1DM are improved by dual organ transplantation. Using the US Renal Data System, they identified 11,145 adults with T1DM who had received either a simultaneous pancreas–kidney

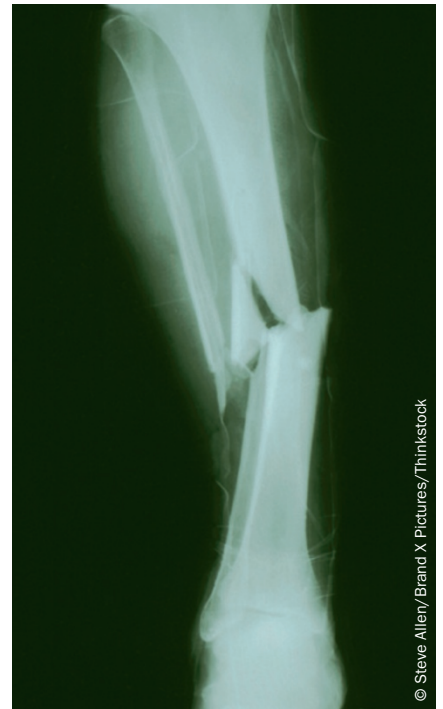
transplant ($n = 4,933$) or a kidney transplant alone ($n = 6,212$).

Nikkel *et al.* found that significantly fewer pancreas–kidney transplant recipients compared with kidney transplant recipients experienced a fracture during follow-up (4.7% versus 5.9%, respectively). In men, simultaneous pancreas–kidney transplantation was associated with a 31% lower risk of fracture over a 5-year period, whereas no association was found in women.

The researchers state that further research is needed to clarify mechanisms of fracture in these individuals and to develop effective fracture prevention strategies that can be used in conjunction with pancreas–kidney transplantation.

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Original article Nikkel, L. E. *et al.* Pancreas–kidney transplantation is associated with reduced fracture risk compared with kidney-alone transplantation in men with type 1 diabetes. *Kidney Int.* doi:10.1038/ki.2012.430



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