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Letter to the Editor

LETTER TO THE EDITOR

Risk of aspiration during general anaesthesia in patients on glucagon-like peptide-1 (GLP-1) receptor agonists: implications for patients on the kidney transplant waiting list

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To the Editor,

Glucagon-like peptide-1 receptor agonists (GLP-1RAs) are increasingly used in patients with Type 2 diabetes (T2DM) and chronic kidney disease, or for weight management purposes. Given the prevalence of T2DM in the transplant waitlisted population many institutions will likely have patients on GLP-1RAs on the kidney transplant waiting list. These drugs could have been prescribed by nephrologists but also by other healthcare providers such as general practitioners, diabetologists and specialized weight management teams. In some instances patients may also purchase them online, unbeknownst to their general practitioners and nephrologists. Here, we would like to highlight a potentially significant risk if patients on GLP-1RAs are called in for a transplant from a deceased donor, namely the risk of pulmonary aspiration during general anaesthetic (GA).

Concerns regarding the use of GLP-1RAs prior to GA are not new. Two years ago, Klein and Hobai reported a first case of a 42-year-old man with Barrett's oesophagus who aspirated during endoscopy while on semaglutide [1]. Despite an 18-h fast the endoscopist had reported the stomach to be full. A significant number of similar reports have emerged since then [2] and in November 2024, the Food and Drug Administration updated the label for these drugs with a warning of aspiration during GA and deep sedation [3]. A multi-society guidance document acknowledged the possible risk as well as the uncertainty given the limited value of anecdotal reports [4]. The risk is believed to be higher during the dose escalation phase of treatment, with higher and weekly doses, in patients who report gastrointestinal symptoms and those who have comorbid conditions that cause delayed gastric emptying [4]. The authors also acknowledged the potentially life-threatening nature of aspiration and suggested a number of precautions with an emphasis on preoperative planning [4]. The latter is difficult if not impossible in transplant waitlisted patients called in for a deceased donor transplant. This population of patients also differs from other groups of patients in that they are uniquely vulnerable to catastrophic complications of aspiration, particularly if it occurs unnoticed and patients have already received their induction immunosuppression.

Based on the limited data currently available, GLP-1RAs may increase the risk of aspiration during GA although the magnitude of the risk is currently unclear. It is also the case

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Table 1: Actions to mitigate against the risk of aspiration in waitlisted patients on GLP-1RAs.

Identify patients at risk
Ask about use of GLP-1RAs when patients are called in for a kidney transplant, particularly in T2DM and/or obesity and add this to existing checklists
Identify waitlisted patients who are on GLP-1RAs, for example through the EHR, i.e. where medication is documented in the EHR
Consider alerting waitlisted patients through letter, e-mail, posters in transplant assessment clinic waitlisting areas
Proactively ask about use of GLP-1RAs during reviews on the transplant waiting list and in clinic
Consider the possibility that patients are on GLP-1RAs even if not documented in the EHR, i.e. where patients purchase these drugs online
Facilitate a discussion of risk versus benefit of remaining on GLP-1RAs while waitlisted
Produce patient information on this topic to explain the risk and help inform discussions
Discuss risk and benefit using shared decision making, document the discussion and alert transplant surgeons and anaesthetists to this fact
Promote and explore live donor transplantation as in this scenario GLP-1RAs can be stopped prior to elective transplant surgery
Mitigate against the risk when patients on GLP-1RAs are called in for a deceased-donor transplant
Consider point-of-care gastric ultrasound prior to anaesthesia to assess the risk
Consider rapid sequence induction, use of prokinetics, gastric tube prior to induction, awake tracheal extubation
Consider regional anaesthetic for transplant surgery
Promote awareness and educate the multiprofessional team
Alert and educate nephrologists, transplant surgeons, anaesthetists, waiting list coordinators, dieticians, diabetologists
Report cases of aspiration with GLP-1RAs during GA for kidney transplantation through national reporting mechanisms

EHR, electronic health record.

that the use of GLP-1RAs in the transplant waitlisted population is likely to grow. More data are required to understand the magnitude of the risk of aspiration although risk-mitigating strategies have been described [5]. In our practice we follow these recommendations, and we do not stop GLP1-RA for elective surgery as the duration of action is too long to reliably reduce the risk of aspiration. With reduced renal function the duration of action is further prolonged in some GLP1-RAs. The most important point from an anaesthetist's perspective is that patients at risk are identified. It is also important not to exaggerate the risk: a recent cohort study in 366 476 individuals undergoing common surgical procedures did not show an increased risk of aspiration [2] and aspiration in conjunction with use of GLP-1RAs during transplant surgery has not been reported either. In comparison, the benefits of having a transplant are very clear. However, as transplant professionals we believe that vigilance is warranted given the potentially catastrophic outcome of aspiration pneumonia in this population. We believe that the transplant community should consider pragmatic steps to prevent this complication (Table 1). We propose that nephrologists involved in transplant listing, transplant surgeons and anaesthetists should be aware of this potential risk, ensure informed consent is obtained from potential transplant recipients and report cases where aspiration has occurred in patients on GLP-1RAs.

CONFLICT OF INTEREST STATEMENT

A.W. is a Member of the *CKJ* Editorial Board.

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