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ID 4073 - Unexplained INR instability following switch from injectable to oral Semaglutide: a case report

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Introduction:Semaglutide, a GLP-1 receptor agonist used in type 2 diabetes, is available in both injectable and oral forms. While drug-drug interactions with vitamin K antagonists are uncommon, formulation changes may alter absorption and pharmacokinetics.
Case report:We report the case of a 78-year-old man with type 2 diabetes and rheumatoid arthritis, treated with acenocoumarol, oral semaglutide (after switch from injectable), telmisartan/hydrochlorothiazide, and levothyroxine. Following a temporary pharmacy shortage of injectable semaglutide (s.c.), his treatment was switched to oral semaglutide.Soon after the switch, the patient's INR became erratic, fluctuating between sub- and supratherapeutic levels despite stable acenocoumarol dosing and no changes in diet or adherence. No signs of infection, hepatic dysfunction, or drug misuse were identified. After several weeks of monitoring and dose adjustments without success, the reintroduction of injectable semaglutide led to rapid INR stabilization within the therapeutic range.
Discussion:This case suggests a potential interaction between oral semaglutide and acenocoumarol, possibly due to altered gastrointestinal absorption or hepatic enzyme modulation. While semaglutide is not known to interact directly with vitamin K antagonists, the formulation change appears to have impacted INR control. Clinicians should be cautious when substituting GLP-1 analogues and consider INR monitoring during such transitions in anticoagulated patients.