Gastrointestinal complications in cardiac failure and in the cardiac ICU

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Although gastrointestinal (GI) complications in the cardiac ICU are uncommon, they are associated with increased morbidity and mortality as well as significant utilization of hospital resources. Seen both in patients post cardiac surgery and in those with heart failure, the most dreaded complications are GI bleed, diarrhea, especially from Clostridium difficile colitis, and ischemic colitis. Most patients that develop these complications are older in age, have significant co-morbidities, often have a history of renal impairment, have undergone emergency cardiac surgery, and are often in cardiogenic shock. Although the incidence of GI bleed from stress ulcers in the cardiac ICU has decreased significantly with the prophylactic use of proton pump inhibitors, the advent of left ventricular assist device (LVADs), especially the continuous flow (CF) variety has escalated the risk of recurrent GI bleed in this group of patients. The incidence of GI bleed in patients with CF-LVADs is ranges between 18.9% - 22.3%, considerably higher than that associated with the earlier pulsatile LVADs. Arteriovenous malformations (AVMs) of the gut, especially the UGI tract are the commonest cause. In a large review published by the Mayo Clinic in Arizona, USA, the authors performed a comprehensive literature review to identify articles that reported GI bleed in patients with LVADs. They reviewed 10 case reports, and 22 case series with a total of 1543 patients. Most patients that bled had non-pulsatile LVADs. Although the patients underwent multiple procedures, often a definite source of the bleed was not identified. Most had AVMs of the UGI tract. Interestingly, the use of anticoagulation did not seem to co-relate with increased risk of bleeding in this group. All were treated medically, and none needed to get their LVAD replaced. Emerging data suggests that pre-operative GI evaluation prior to LVAD implantation may be beneficial in reducing the risk of GI bleed.

Biography
Cuckoo Choudhary is an Associate Professor of Medicine in the Division of Gastroenterology and Hepatology at Thomas Jefferson University in Philadelphia, Pennsylvania, USA and have been a Faculty there after completing her Fellowship 15 years ago.

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