

**An insight to medical therapy for anterior resection syndrome**Nimra Shakeel<sup>1</sup>, Muhammad Umar Raza<sup>2</sup>, Ahla Jasim<sup>3</sup>

*Dear Madam*, Colorectal cancer ranks as the third most common type of cancer in the world. One of the most common types of surgery instituted to eliminate cancer lesion in the lower rectum is low anterior resection.<sup>1</sup> About one-third patients develop low anterior resection syndrome/ anterior resection syndrome (LARS/ARS) following this surgery, which comprises of painful defecation, stool urgency and frequency, inability to discriminate between flatus and stool, diaper dependency, difficulty holding stools as well as incontinence which leads to extremely poor quality of life.<sup>1</sup> Surgery, as well as the radiotherapy, is inflicted in the development of this syndrome since both results in some form of damage to the innervations of the anal sphincter and rectum.<sup>2</sup> Neo-rectum produced from surgery cannot also hold stool for long, which also contributes to the symptoms of this syndrome.<sup>2</sup>

Anterior resection syndrome often fails to remit and becomes a chronic ailment for the colorectal cancer survivors, thus causing significant malfunction and distress to their lives.<sup>3</sup> Very little research has focused on the management of LARS/ARS. Symptoms of LARS/ARS seem to resemble that of diarrhoea- predominant irritable bowel syndrome (IBS-D) and studies have shown that these symptoms may be the result of altered expression of serotonin receptors.<sup>4,5</sup> Ryohei Itagaki et al. in their clinical trial demonstrated the efficacy of 5-HT<sub>3</sub> receptor antagonists in reducing symptoms of LARS/ARS.<sup>5</sup> In this small trial a 5-HT<sub>3</sub> receptor antagonist, ramosetron was given to the patients for one month and noticed that it produced significant reductions in stool urgency as well as the number of stools per day.<sup>5</sup> These results indicate that therapeutic options which have demonstrated efficacy against IBS-D such as 5-HT<sub>3</sub> receptor antagonists and opioid receptor agonists may prove efficacious in reducing symptoms of LARS/ARS.<sup>6</sup> Loperamide has since long proven to be a potent anti-diarrhoeal agent and has established its efficacy in treating IBS-D in several clinical trials.<sup>7</sup> In a double-blind clinical trial conducted by P S Efskind et al, loperamide produced improvement in stool

consistency and frequency throughout the five weeks of treatment in patients with IBS-D.<sup>7</sup>

With that being said, there is a severe scarcity of clinical trials assessing the safety and efficacy of these drugs as well as their comparison with one another in treating LARS/ARS. Most health care workers are reluctant to prescribe these medications because of their albeit rarely reported adverse effects despite their effectiveness in treating IBS-D as well as other forms of chronic diarrhoea.<sup>7</sup> There is a dire need to develop a complete, well-structured, and scheduled therapeutic regimen to treat LARS/ARS. These drugs alone or in a combination regimen may provide an answer to the distressing symptom complex of LARS/ARS that render these unfortunate cancer patients mal-functional and inhibited.

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