

Dostarlimab: A light of hope espied amidst an age-long combat against cancer

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Madam, a recent study investigated if checkpoint blockade would be effectual in patients with mismatch repair-deficient (MMRd), locally advanced rectal cancer.¹ Patients with MMRd stage II or III rectal adenocarcinoma-treated conventionally via surgery, radiation therapy and chemotherapy- received the intravenous medicament of single-agent dostarlimab, an anti-PD-1 monoclonal antibody, every three weeks for six months.^{1,3} Extraordinarily, complete clinical remission was observed in 100% of the patients.^{1,4} Twelve patients have undertaken the complete treatment, with an additional six month period of post-treatment follow up, and exhibited no sign of tumour on physical exam, MRI scans, endoscopy, PET scans, digital rectal examination, or biopsy.¹ Hence, they were not required to partake in chemoradiotherapy or surgery.^{1,4}

Dostarlimab, a checkpoint inhibitor, has been utilized as a form of immunotherapy which worked in MMRd colorectal cancer cells amongst which the absence of a DNA repairing gene is observed.^{2,4} Dr. Andrea Cercek, explains that ordinarily immunotherapy demonstrates a success rate of approximately 10% when used in colorectal cancer in advanced disease, as opposed to that of dostarlimab at 100%.²

Commonly, checkpoint inhibitors trigger reactions in 1 in 5 patients, and while the majority are easily handled, 3% to 5% suffer extreme complications that may cause difficulty in swallowing, masticating and muscle weakness.⁴ Another game-changer observed by Cercek et al. is the lack of clinical side-effects.^{1,4} In rectal cancer, where arduous treatments can have enfeebling sequelae, comprising bowel, bladder and sexual disfunction, in addition to infertility and neural damage, dostarlimab may also be the key to a good quality of life post cancer survival.^{3,4}

Due to the small sample size, however, there is little data on the efficacy of this treatment. Results, though

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promising, will require a bigger group of patients to add to their credibility.^{3,4} Follow up-s spanning a lengthier period would ensure that there are no relapses or side effects and that the drug has proved remedial.^{1,3,4} Furthermore, as suggested by Dr. Cercek, this hypothesis should be tested in other MMRd solid tumours such as stomach, pancreatic and bladder cancer, which have similar potential for successful immunotherapy.² Dostarlimab's previous success with endometrial cancer adds promise to this vision.⁵ The National Health Service in the UK, via the Cancer Drugs Fund, is offering dostarlimab to 100 women every year for endometrial cancer treatment, which costs \$11,000 per dose.^{4,5} Elsewhere, federal health budgets should replicate this and adopt a multidisciplinary approach in the purchase and distribution of dostarlimab, encouraging more people to approach such propitious new treatments.

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