ULTRASOUND: A NEW STRATEGY TO EVALUATE BODY COMPOSITION IN CROHN’S PATIENTS UNDERGOING HEMATOPOIETIC STEM CELL TRANSPLANTATION (HSCT)

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BACKGROUND

Crohn disease is a chronic inflammatory disorder of the gastrointestinal tract with a strong polygenic immune component. In refractory cases, autologous HSCT can decrease disease activity and mucosal healing and improve quality of life. Reduced muscular mass and excess visceral fat in patients undergoing HSCT are associated with higher mortality, longer hospitalization, longer use of immunosuppressive drugs, graft-versus-host disease, shorter disease-free interval after the HSCT and comorbidities leading to shorter survival time.

OBJECTIVES

To evaluate muscle thickness and visceral fat by US.

METHODS

We evaluated 5 HSCT patients (≥18 years) at Hospital Israelita Albert Einstein, São Paulo, Brazil, on their first day of hospitalization, before HSCT and after the engraftment. The thickness of the right femoral quadriceps muscle (RFQ), measured at 6 cm from the top edge of the patella was measured using US in B-mode. The VF was measured in the abdominal region, by the thickness of the fat layer between the linea alba and the anterior wall of the aorta.

RESULTS

Most patients were men (75%) with a mean age of 35 years (± 14 years). Most patients were undernutrition, with body mass index (BMI) of 21 kg/m² (± 2.5 kg/m²). The average time EN was 11 days (± 1 days). In the baseline, RFQ was 1.5 cm (± 0.2 cm) and the VF was 4.2 cm (± 1.3 cm). After engraftment, RFQ was 1.3 cm (± 0.2 cm) and the VF was 4.2 cm (± 1.2 cm). There wasn’t significant difference between baseline and after engraftment, although RFQ had reduced in all patients.

CONCLUSION

In this cohort of patients we found reduced muscle thickness after engraftment and VF didn’t have any alterations. The US was a practical, economical and effective method to evaluate these patients.