

Titre de l'article

Growth hormone treatment impact on growth rate and final height of patients who received HSCT with TBI or/and cranial irradiation in childhood : a report from the French Leukaemia Long-Term Follow-Up Study (LEA).

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Résumé

The literature contains a substantial amount of information about factors that adversely influence the linear growth in up to 85% of patients undergoing haematopoietic SCT (HSCT) with TBI and/or cranial irradiation (CI) for acute leukaemia (AL). By contrast, only a few studies have evaluated the impact of growth hormone (GH) therapy on growth rate and final height (FH) in these children. We evaluated growth rates during the pre-and post-transplant periods to FH in a group of 25 children treated with HSCT (n = 22), TBI (n = 21) or/and CI (n = 8) for AL and receiving GH therapy. At the start of GH treatment, the median height Z-score was -2.19 (-3.95 to 0.02), significantly lower than at AL diagnosis (P < 0.001). Overall height gain from start of GH treatment to FH was 0.59Z (-2.72 to 2.93) with a median height Z-score at FH of -1.35 (-5.35 to 0.27). This overall height gain effect was greater in girls than in boys (P = 0.04). The number of children with heights in the reference population range was greater after than before GH therapy (P=0.07). At FH the GVHD and GH treatments lasting < 2 years were associated with shorter FH (P= 0.02 and 0.05). We found a measurable beneficial effect of GH treatment on growth up to FH.

Mots-clés

Cancer, Malignant hemopathy, Corporal biometry, Adenohypophyseal hormone, Hematopoietic stem cell transplantation, Hematology, Follow up study, Long term, Human, Body size, Treatment, Skull, Whole body, Somatotropin, Radiotherapy, Growth rate, Acute leukemia

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