

Late effects after Hodgkin lymphoma in childhood and adolescence – results of the German Survivor Cohort after 22 years of follow-up

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Introduction

Overall survival after Hodgkin lymphoma (HL) in childhood and adolescence is 94% after 10 years, but decreases to 88% after 30 years due to long term effects of cancer therapy. Treatment related late effects such as radiotherapy-induced malignant neoplasms, cardiovascular diseases, thyroid gland disorders, impaired male fertility, and pulmonary fibrosis have so far been identified.

Methods

Starting in 1999, questionnaires were sent every 3 to 4 years to all long- term survivors of the first seven consecutive German-Austrian pediatric HL treatment studies to obtain information about their health status by the former chairpersons (G. Schellong and W. Doerffel) (1,2) In 2016, data of 1477 /2187 survivors (68%) could be transferred to the current HL study center (chairperson D. Körholz) after obtaining written informed consent. The late effect registry consecutively included survivors of the latest German-Austrian HL trial, GPOH-HD 2002 into the status questionnaire sent out in 2018.

Results

The study cohort now consists of 1907 patients that were treated for HL at age < 18 years in 1978 to 2005. Median age at diagnosis was 13.9 years (2.5 – 23.3), 81% of all patients received radiotherapy. 1094 survivors (57%) (501 male/ 593 female) with a median age of 35.7 (18.1 – 55.2) years and a follow-up time of 21.7 (12.9 – 40.6) years responded to the questionnaire: 30% were smokers or former smokers and 58% reported physical exercise (38% > 150 min per week). 52.5% of all men and 30.1 % of all women reported overweight with BMI > 25. 29.5% of all men and 54.8% of all women had children.

Conclusion

The current results require more detailed analysis and correlation to treatment factors. The long term follow-up of the German HL survivor cohort will be continued further and extended to more patients ≤ 10 years after treatment. Findings on treatment-related late effects may be used to design upcoming Pediatric Hodgkin Lymphoma trials. Results may translate into immediate improvements in long term follow-up care, e.g. breast cancer screening programs after chest irradiation. Long term follow-up of young HL survivors is essential for improving long term survival and follow-up care.

Affix**References**

- [1] Dörffel W et al. Late effects following treatment of Hodgkin lymphoma during childhood and adolescence. Results of the Hodgkin Lymphoma (HL) Late Effects Research Project. *Klin.Pädiatrie* 228: 1-7 (2016)
- [2] Schellong G et al. Breast cancer in young women after treatment for Hodgkin's lymphoma during childhood or adolescence - an observational study with up to 33-year follow up. *Dtsch Arztebl Int*, 111: 3-9 (2014)