Trends in melanoma tumour thickness in Norway, 1983–2019

Abstract for ANCR Symposium 2022

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# Abstract

Norway ranks fifth in incidence and second in mortality of cutaneous melanoma worldwide. Tumour thickness at diagnosis is the most important prognostic factor for melanoma and is cornerstone for melanoma classification. Using recently digitized tumour thickness data (1980–2007) and data from melanoma registry (2008–2019), we aim to investigate the tumour thickness trend in Norway, overall and in important subgroups in a nationwide case series from 1983–2019.

Tumour thickness was categorized as T-categories: T1 ( 1.0 mm), T2 (1.0-2.0 mm), T3 (>2.0-4.0 mm), and T4 (>4.0 mm). Missing thickness were imputed using multiple imputation methods and the incidence rates were age-standardized using European standard population. Trend in incidence rates over time were analysed using annual percentage changes (APC) and average APC.

Among the 45,812 first primary invasive melanoma cases diagnosed in 1983–2019, median age at diagnosis increased from 56 years (1983–1999) to 63 (2008–2019) in women and from 59 to 67 in men. The age-standardized incidence rate of melanoma increased from 17.7 to 33.3 in women and from 12.9 to 35.2 in men. A plateau was observed in incidence of T1 melanomas in both women (1990–2004) and men (1991–2003). Men were diagnosed with thicker melanomas more than women. The trend has higher average APC in men than women, but the trend has declining trend in the recent years. Additionally, incidence of T1 melanomas is higher for trunk in both sexes, followed by lower limbs in women. Most thicker ones are nodular melanoma, and the thinner melanoma are superficial spreading melanoma and has higher incidence rate than nodular melanomas.

T1 melanomas had the largest increase in incidence over time. An increasing trend was also observed in thicker tumours, suggesting that the rise in melanoma incidence is due to not only overdiagnosis/pathological practice.