Denmark

In Denmark with 5 neurosurgical departments, 5.2 mill. population and a retirement age of 70, we have an average of 1-2 newcomers per year and maintain a bulk of 10 senior registrars in education. Thus there will be a balance between intake of newcomers and retirement, of course with some unknown factors as unforeseen dismissal or resignation, death rate among neurosurgeons and transfer to private practice [1)].

Society

see Danish Neurosurgical Society

Hospitals

Aalborg.

Aarhus.

Copenhagen.

Odense

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CNS Tumors

During the period 1980-2012 the number of patients with CNS tumors increased from 603 to 1378 patients. The increase is seen mainly in the elderly patients, and especially in women aged 84-89 and 90 + at the time of diagnosis. During the same time period, the mortality rates increased within all age groups, most significantly in patients aged 70 years or older. This may reflect an increased focus on and identification of these patients. Noteworthy; the number of patients living with a CNS tumor increased from 2952 in 1980 to 12 147 patients in 2010.

This study suggests that the current treatment strategies in general may have improved survival in patients with CNS tumors, but in order to improve survival further in the increasing group of elderly patients more knowledge about treatment of these patients is needed [2)].

Hansen et al., included prospectively recorded clinical data from 1364 adult patients with histologically verified glioblastoma from the Danish Neuro-Oncology Registry, 2009-2014.

The age standardized incidence rate was 6.3/100,000 person-years for males and 3.9 for females and the median age was 66 years. The median overall survival was 11.2 months. There was an independently significant prognostic effect of age, performance status, cognitive symptoms, tumor diameter, multifocality, crossing midline, and contrast enhancement. For partial and total resection compared to biopsy only, the adjusted risk of dying was reduced by 43% (HR [CI] 0.57 [0.48-0.68])

and 51% (0.49 [0.40-0.60]), respectively. For patients receiving a partial and full radiochemotherapy regimen compared to no postsurgical treatment, the risk reduction was 56% (HR [CI] 0.44 [0.37-0.53]) and 70% (0.30 [0.25-0.35]), respectively. The full radiochemotherapy regimen was only allocated to 50% of the patients, 29% among the oldest (70+ years) and 60% among the younger (18-69 years).

Glioblastoma patients had a poor overall survival but with several specific independent prognostic factors. Extensive cancer treatment was associated with an increasing survival in all age groups, but only half of the patients were sufficiently fit for a full regimen of postoperative combined radiochemotherapy [3)].

Intracerebral hemorrhage

A cohort consisted of all individuals diagnosed with a primary ICH in Denmark 1996-2011. Information on comorbidities, surgical treatment for the primary ICH, and the use of Antithrombotic therapy ATT, serotonin reuptake inhibitors (SSRI's) and nonsteroidal anti-inflammatory drugs (NSAID's) was retrieved from the Danish national health registers. The cumulative recurrence risk of ICH was estimated using the Aalen-Johansen estimator, thus taking into account the competing risk of death. Associations with potential predictors of recurrent ICH were estimated as rate ratios (RR's) using Poisson regression. Propensity score matching was used for the analyses of medicine with antithrombotic effects.

Among 15,270 individuals diagnosed with a primary ICH, 2,053 recurrences were recorded, resulting in cumulative recurrence risk of 8.9% after one year and 13.7% after five years. Surgical treatment and renal insufficiency were associated with increased recurrence risks (RR 1.64, 95% CI 1.39-1.93 and RR 1.72, 95% CI 1.34-2.17, respectively), whereas anti-hypertensive treatment was associated with a reduced risk (RR 0.82, 95% CI 0.74-0.91). We observed non-significant associations between the use of any of the investigated medicines with antithrombotic effect (ATT, SSRI's, NSAID's) and recurrent ICH.

The substantial short-and long-term recurrence risks warrant aggressive management of hypertension following a primary ICH, particularly in patients treated surgically for the primary ICH, and patients with renal insufficiency [4)].

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