Pneumococcal conjugate vaccine is effective in pediatric HSC transplant recipients

Life-threatening pneumococcal infections are common in children who undergo allogeneic hematopoietic stem-cell transplantation (alloHSCT). Vaccination with 23-valent pneumococcal polysaccharide vaccines has been shown to elicit only low response rates as a result of immunologic immaturity of the recipients. A study by Meisel *et al*. has shown that a heptavalent pneumococcal conjugate vaccine (7vPCV) induced protective antibody responses in children who received an alloHSCT transplant from a related or unrelated donor.

The study included 53 pediatric alloHSC transplant recipients (median age 8.3 years; range 1.4–16.9 years) who received three consecutive doses of 7vPCV at monthly intervals starting 6 to 9 months after alloHSCT. The serologic response rates to the different pneumococcal serotypes ranged from 41.9 to 86.0% and from 58.1 to 93.0%, following second and third immunizations, respectively. After the second and third vaccine, seroprotection against all seven vaccine serotypes was achieved in 55.8% and 74.4% of patients, respectively. Seroprotection was independent of recipient age, donor type, and time from transplantation to first vaccination. Children who received immunosuppresive therapy at the time of vaccination also achieved seroprotection to at least six pneumococcal serotypes and none of the four serious adverse events observed during this study was related to the vaccine.

On the basis of these results, the authors conclude that vaccination with 7vPCV is safe, well-tolerated and able to elicit protective responses within the first year after alloHSCT. They suggest that early 7vPCV vaccination should be part of the therapeutic approach in pediatric alloHSC transplant recipients.

Original article Meisel R *et al.* for the Impfung von Kindern nach allogener Stammzelltransplantation (IKAST) Study Group (2007) Pneumococcal conjugate vaccine provides early protective antibody responses in children after related and unrelated allogeneic hematopoietic stem cell transplantation. *Blood* **109:** 2322–2326

Dasatinib is active in imatinib-resistant and imatinib-intolerant patients with CML

Imatinib is widely used in the treatment of chronic myeloid leukemia (CML), a disorder characterized by the presence of the *BCR-ABL* fusion gene; however, the therapeutic options for patients with imatinib-resistant or imatinib-intolerant chronic-phase CML (CML-CP) are limited. A recent phase II study showed that dasatinib, a novel oral agent active against BCR-ABL, induce remarkable responses in patients with CML-CP resistant or intolerant to imatinib.

The study included 186 patients with CML-CP who received a median dasatinib dose of 101 mg/day for a median duration of 8.3 months. After therapy, complete hematologic responses were noted in 90% of patients. In imatinib-resistant and imatinib-intolerant patients, complete hematologic response rates were 87% and 97%, respectively. Major cytogenetic responses were noted in 52% of patients, with 50 of 127 patients being imatinib-resistant and 47 of 59 patients being imatinib-intolerant. Responses with dasatinib were sustained in 96% of imatinib-resistant and 100% of imatinib-intolerant patients. The progression-free survival rate was 92.4% and responses were observed across all *BCR-ABL* genotypes, even in patients with *BCR-ABL* mutations conferring imatinib resistance. Dasatinib was generally well tolerated; only 9% of patients discontinued treatment because of adverse effects. Cytopenias were the most common hematologic adverse effects. Nonhematologic events due to dasatinib were generally reversible and included headache, fatigue and dyspnea (grade 1 or 2); however, 3% of patients experienced pleural effusions (grade 3 to 4).

This study demonstrates that dasatinib is an effective and well-tolerated agent for the treatment of patients with CML-CP resistant or intolerant to imatinib.

Original article Hochhaus A *et al.* (2007) Dasatinib induces notable hematologic and cytogenetic responses in chronic-phase chronic myeloid leukemia after failure of imatinib therapy. *Blood* **109:** 2303–2309

Postoperative radiochemotherapy improves outcome in head and neck cancer

Locoregional failure occurs in a considerable proportion of patients with squamous-cell head and neck carcinoma, despite aggressive surgical treatment and postoperative irradiation. Several studies have indicated an improved outcome in patients treated with postoperative concomitant radiochemotherapy with cisplatin. Zakotnik *et al.*