Effect on nursing advice on the use of cryotherapy for APBSCT patients to reduce oral pain and mucositis

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Introduction
High dose Melphalan (200mg/kg) conditioning therapy in Autologous Peripheral Blood Stem Cell Transplantation (APBSCT) is commonly used in patient with Multiple Myeloma. However, this high dose conditioning therapy mostly complicated with severe oral mucositis. Mori & et al (2006) had reported the effectiveness on the use of oral cryotherapy in preventing high-dose Melphalan-induced stomatitis. During the Journal club sharing in the Haematology team, nurses agreed that oral cryotherapy is a low-cost, readily available therapy and simple advice for reducing oral mucositis. Trial on practicing the advice according to Mori may reduce oral pain and complications induced by mucositis during APBSCT.

Objectives
To improve clinical outcome in reducing mucositis, oral pain in patients receiving high dose Melphalan conditioning therapy in APBSCT

Methodology
There was total 15 patients underwent APBSCT from April 2013 to November 2014. Advice on taking ice chips for 30 minutes before, 30 minutes during and 60 minutes after the Melphalan infusion was given to patients. 9 patients agreed to receive nursing advice. Mucositis, oral pain and use of Total Parenteral Nutrition (TPN) support was found decreased for patients who received advice from nurses.

Result
Result showed that Oral Assessment Guide (OAG) score ranged from 13-36 to 15-36; the mean score was 17 for patients who received advice on using cryotherapy.
Compared with patients not taking advice, OAG ranged from 13-36 to 18-36; the mean score was 20; it demonstrated a significant decrease in the severity of oral mucositis. Pain score for patients with oral cryotherapy was 0-6 and no patients required to use Nacrotics during the APBSCT. Compared with patients not taken ice chip, pain score has slightly decreased but the use of Nacrotics has significantly decreased by 60%. Past experience showed that all patients underwent APBSCT required Total Parental Nutrition (TPN) support from 3 to 7 days. After the implementation of the cryotherapy advice, only 56% patients had to receive TPN from 1 to 8 days.