THE USE OF ELASTO-GEL™ HYPOTHERMIA CAPS
IN PREVENTION OF ALOPECIA

Monique Le Ménager, Chief Nurse
Laurence Deurthe, IDE
Nathalie Maréchal, IDE
Centre Oscar Lambret, Medical Oncology Department
Lille, France

Alopecia caused by the administration of some cytostatics remains a severe emotional problem for men and women alike, regardless of the patient's age.

The nursing team of Professor J. Bonneterre (Anti Cancer Center in Lille) is particularly aware of this problem and developed several protocols for the use of an hypothermia cap in function of the antimitotics injected: Anthracyclines, Paclitaxel (TAXOL®), Docetaxel (TAXOTERE®).

Patients

• Chemotherapy based on Anthracyclines:
The patients \( n = 42 \) received at least 3 treatments of FEC (Epirubicine 50 mg/m², Cyclophosphamide 500 mg/m², Fluoro-Uracile 500 mg/m²) before evaluation.

• Chemotherapy with Paclitaxel:
The patients \( n = 28 \) received at least 3 treatments with Paclitaxel dosed at 135 mg/m² \( (n = 9) \) or dosed at 175 mg/m² \( (n = 19) \) before evaluation.

• Chemotherapy with Docetaxel:
The patients \( n = 96 \) received at least 3 courses with Docetaxel dosed at 100 mg/m² before evaluation.

Method

First one moistens a disposable non-woven cap with cold water and places it on the patients hair, then one puts on the hypothermia cap, the temperature of which is
between -25°C and -30°C. This temperature is reached by keeping the cap in a deep freezer for at least 12 hours. The neck, the forehead and the ears are protected from frostbite with cotton wool. The cap is kept firmly in place by wrapping it with elastic bandages.

• The FEC protocol:
The Anthracyclines (50 mg/m²) are injected IVD 15 minutes after the cap is put on. The cap stays in place for a duration of one hour.

• The Paclitaxel protocol:
The infusion is switched on 15 minutes after the cap is put on. The course takes 3 hours so 5 caps will be used (1 cap every 45 minutes).

• The Docetaxel protocol:
The infusion is switched on 15 minutes after the cap is put on. The course takes 1 hour so 2 caps will be used (1 cap every 45 minutes).

Results

The cap is judged effective only if the patient doesn't need to wear a wig. Alopecia is evaluated according to UICC criteria.
• With the FEC protocol, 86% of the patients show alopecia at stage 0 or 1.
• With Docetaxel, 85.3% of the patients show alopecia at stage 0 or 1.
• With Paclitaxel in a dose of 135 mg/m², 89% of the patients show alopecia at stage 0 or 1.
• With Paclitaxel in a dose of 175 mg/m², 62% of the patients show alopecia at stage 0 or 1.

Conclusion

The correct application by the nurses of the protocols for hypothermia cap use is very encouraging. The hypothermia cap is a valuable and efficient tool that must be used. It allows to considerably improve the quality of life of our patients who keep their identity.