

## **LONG TERM STORAGE OF CRYOPRESERVED AUTOLOGOUS STEM CELL UNITS IN MULTIPLE MYELOMA : SINGLE CENTER STUDY IN TUNISIA**

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**Background:** Cryopreserved stem cell units (SCU) are harvested for double autologous stem cell transplantation (ASCT) in multiple myeloma (MM) patients. However, several units collected each year remain unused creating an increasing load for SCU depositories. This raises the question of the cost-effectiveness of SCU long term storage in a limited resources country.

**Methods :** We conducted a retrospective study to investigate the outcome of SCU collected between January 2014 and January 2021 for ASCT in 248 MM patients.

**Results :** Data from 260 collections (1 mobilization attempt n= 238, 2 or more n=10) were gathered, for a total of 660 SCU. The median time from mobilization to the first ASCT was 3 months (0.5-18). Up to 13.7% of all the patients (n=34) did not undergo SCU reinfusion (Disease progression n=13, lost to follow-up n=12, death n=2, ineligibility n=4, lack of consent n=3). Only 13 patients (6%) in our cohort received a 2nd ASCT after a median of 40 months from mobilization (10-64). After a median follow-up of 49 months (10-99), the number of still-stored SCU is 376 (57%). Among the remaining SCU, 92 can be disposed (patient death n=31, age over 65 years n=20). The other SCU will continue to be stored despite a very limited number of 2nd ASCT.

**Conclusions :** Based on these results, a benefit-cost balance should be considered to establish national recommendations for cost-effective storage and disposal of SCU.