DI-054

ARE PATIENTS ADHERENT TO THALIDOMIDE?

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① BACKGROUND

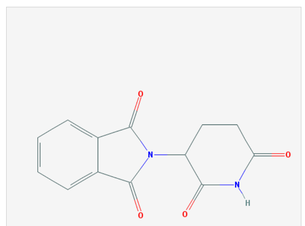

Figure 1. Thalidomide
Source: PubChem https://pubchem.ncbi.nlm.nih.gov

Thalidomide, a potent member of the immunomodulatory drug family (**IMIDs**) induces both direct myeloma cell death, and indirect antimyeloma response through its impact on the microenvironment.

The drug is approved in **multiple myeloma**, and also in other rare diseases as severe recurrent aphthous stomatitis.

Thalidomide is considered as an effective drug in all its indications; it is also an **expensive** drug.
In an area of limited resources, studies for assessing thalidomide **adherence** are needed for healthcare professionals and payers alike.

② PURPOSE

➔To evaluate **adherence** to thalidomide.

③ MATERIAL and METHODS

Patients who had:
•**at least two successive dispensations** of thalidomide
•whatever the indication
•between 12/07/2015 and 12/07/2016 (**1 year**)
•in our teaching hospital
➔ were included in a **retrospective** study.

The **medication possession ratio** (**MPR**) was used to evaluate thalidomide adherence.
MPR[1] was calculated according to the following formula:

$$MPR = \frac{\text{number of days of medication supplied within the refill interval}}{\text{number of days in refill interval}}$$

Clinical and dispensation data were obtained from medical and pharmaceutical softwares of our hospital.

Based on literature, the threshold of **90%** was used to define two patient categories:
•MPR< 90% ➔ non-adherent patients
•MPR≥ 90% ➔ adherent patients.

④ RESULTS

Fifty-one adult patients were included:
- 40 (78%) ➔ multiple myeloma
- 6 ➔ cutaneous lupus erythematosus or Jessner-Kanof disease
- 4 ➔ serious aphthous or Behcet's disease
- 1 ➔ Miescher's granuloma

The mean patient age was 63.7±13.9 years; 51% were women.

Table I. Characteristics of population

% Mean ± Sd [Min ; Max]	General population n=51	Multiple Myeloma n=40	Other disease n=11
Gender -**male** -**female**	49.0% 51.0%	52.5% 47.5%	36.4% 63.6%
Mean age (years)	63.7±13.9 [37 ; 90]	78.5±12.1 [44 ; 90]	50.0±11.1 [37 ; 67]
Median time to diagnosis (days) *[n = 44 / 37 / 7]*	315 [41 ; 11150]	224 [41 ; 1533]	6767 [2353 ; 11150]
Median number of cycles	4 [2 ; 13]	4 [2 ; 13]	8 [3 ; 12]
Patients with a modification of treatment (thalidomide) (%)	29.4%	27.5%	36.4%
Patients with a continuous treatment (thalidomide)	39.2%	22.5%	100.0%

We observed a mean MPR of **0.90±0.16** [range 0.37-1.20].
The mean MPR was **0.94±0.13** [range 0.61-1.20] in patients with multiple myeloma and **0.77±0.21** [range 0.37-0.99] in patients with other diseases.

A total of **61%** of patients were considered as adherents. The percentage of adherent patients was significantly higher in patients with multiple myeloma than in patients with other diseases (70% vs 27%, respectively; p=0.015).

In **86%** of patients, no explication was found to explain the non adherence. For all other patients, the explanation is provided in the table II.

Table II. Characteristics of patients with treatment interruption

n %	Non adherent patients n=19	Multiple myeloma n=12	Other disease n=7
Treatment interrupted by the physician	1 (5.3%)	0	1 (14.3%)
Treatment interrupted for autologous hematopoietic stem cell transplantation	6 (31.6%)	6 (50.0%)	0

⑤ CONCLUSION

Data are lacking concerning thalidomide adherence. Optimizing thalidomide adherence may increase efficacy of thalidomide-based regimens. Considering the high cost of thalidomide, efforts to increase thalidomide adherence may also reduce wasted money in dispensing pills that are not taken by the patients.

⑥ REFERENCES and/or ACKNOWLEDGEMENTS

1. Peterson AM, et al. A checklist for medication compliance and persistence studies using retrospective databases. Value Health. Jan-Feb 2007;10(1):3-12.