Pegylated Interferon Beta-1a in MS patients: a preliminary real life experience at San Raffale Hospital

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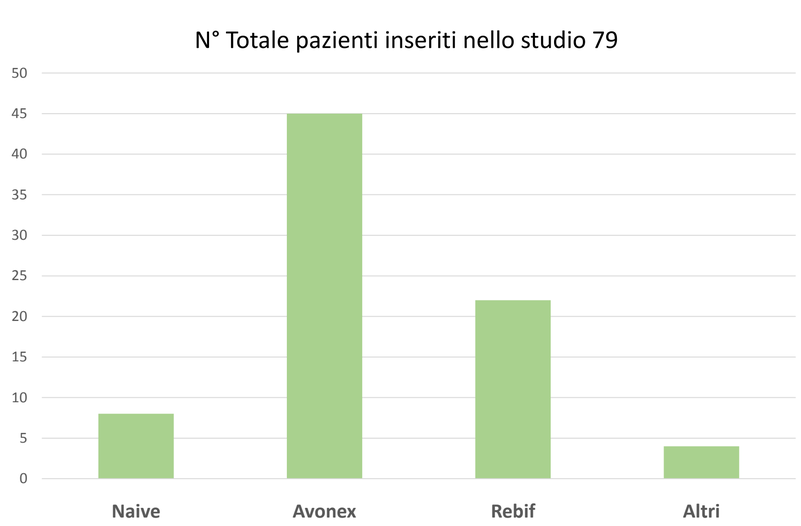
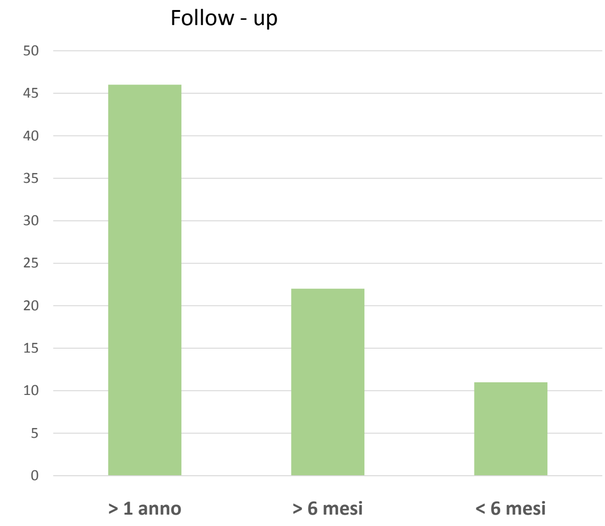
Subcutaneous pegylated interferon beta-1a (PEG-IFN) is available in Italy from2015. We present the first preliminary data about safety and tolerability at one year after initiation of therapy.
We recruited 79 patients affected by RRMS. 8 of them were naïve to other therapy, 45 came from intramuscular Interferon Beta-1a, 22 patients came from subcutaneous interferon Beta 1-a and 4 patient previously received oral therapies. The mean age was 47 years old and 58 of them were women.





Reason for switching to Peg-IFN

	Comfort	A.E.	Other reasons
Ex-Avonex	27 (60%)	7 (15,5%) • Febbre alta • Ascesso su sito iniezione • Depressione (2) • Problemi con l'iniettore	11 (24%)
Ex-Rebif	14 (64%)	6 (27%) • Dist. Sito iniezione	2 (9%)
Altri	0	4 (100%)	0

Età media: 47 aa
F: 58
M: 21
EDSS medio: 2.0

A.E. to Peg-IFN treatment

	Flu-like	Dist. Cutanei	Altri E.A.
Naive	100%	100%	12,5%
Ex-Avonex	65%	90%	22%
Ex-Rebif	92%	60%	23%
Altri	100%	100%	25%

- No serious adverse effects (SAE)
- No Hospedalization
- MS relapses not counted
- No infections reported

Others A.E. (21,5%)
- Depression (1 Teriflunomide; 2 Avonex)
- Acne (1 Naive)
- Mild allergic reactions (2 Avonex)
- Tachicardia (1 Rebif 22; 1 Avonex)
- Cervicalgia – Sciatalgia (3 Rebif, 2 Avonex)
- Lipotimic episode (1 Rebif)
- Pseudovertigo (2 Avonex)
- Linfoadenopathy (1 Avonex)

Flu-like symptoms

	Mild fever	Fever	Headache	Asthenia	Muscle aches	Nausea Vomit
Naive	4 (50%)	0	2 (25%)	2 (25%)	6 (75%)	0
Ex-Avonex	23 (51%)	9(20%)	14 (31%)	14 (31%)	16 (36%)	2 (4%)
Ex-Rebif	11 (50%)	3 (14%)	7 (31%)	11 (50%)	9 (41%)	5 (22%)
Altri	1 (25%)	0	0	0	4 (100%)	0
Totale	**39 (49%)**	**12 (15%)**	**23 (29%)**	**27 (34%)**	**35 (44%)**	**7 (9%)**

Flu-like symptoms usually began in less than 6 hours and last for less than 1 day but a higher percentage of patients who came from injectable therapies complained about longer lasting and more serious symptoms.

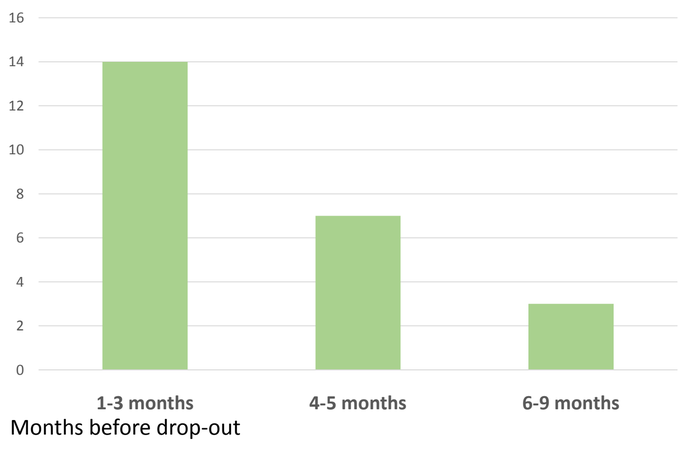
Cutaneous adverse reactions

Estensione massima				
	No	< 2 cm	3-4 cm	> 5 cm
Naive	0	0	2 (25%)	6 (75%)
Ex-Avonex	6 (13%)	5 (11%)	15 (33%)	19 (42%)
Ex-Rebif	5 (22%)	0	10 (45%)	7 (32%)
Altri	0	0	2 (50%)	2 (50%)
Totale	**11 (14%)**	**5 (6%)**	**29 (37%)**	**34 (43%)**

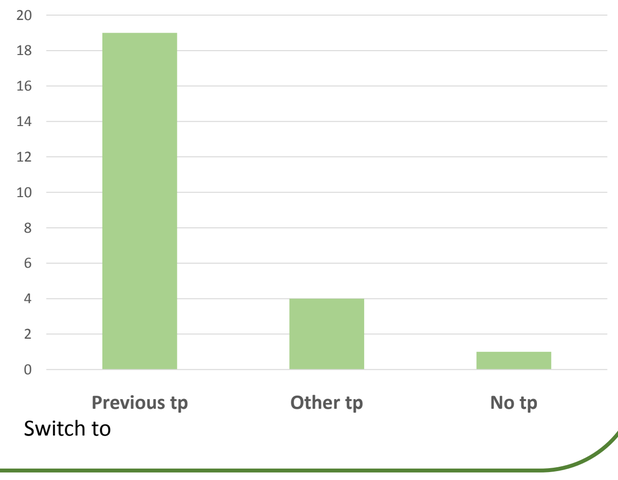
Sintomi associati		
	Dolore	Prurito locale
Naive	2 (25%)	6 (75%)
Ex-Avonex	23 (58%)	10 (25%)
Ex-Rebif	2 (11%)	7 (41%)
Altri	0	2 (50%)
Totale	**29 (43%)**	**25 (37%)**

Cutaneous adverse reaction appeared after 2-4 days and lasted between 2 and 4 weeks with no differences among patients who previously received other injectable drugs.

Drop-out



Reason for drop-out					
	Flu-like	Cutaneous A.E.	Problems with the injector	Other reasons	Total
Avonex	4 (23%)	9 (53%)	1 (6%)	3 (18%)	17 (38%)
Rebif	3 (60%)	0	0	2 (40%)	5 (22%)
Naive	0	1 (12,5%)	0	1 (12,5%)	2 (25%)
Totale	**7 (29%)**	**10 (41%)**	**1 (4%)**	**6 (26%)**	**24 (30%)**



CONCLUSIONS

30% of our patients decided to stop treatment with Peg-IFN and most of them (79%) moved back to previous therapy. The reason for the drop out was, in most cases, the worsening of the common adverse events (AEs) like flu-like symptoms and appearance of erythema on the injection site. No serious adverse reaction were noticed neither blood exams abnormalities were reported except for one case of increased liver enzymes.

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