

Severe Plaque Psoriasis Patients Treated with Biological Drugs in 2011 – 2016: a Retrospective Study

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Aim. To determine short- and long-term effectiveness of biologics and quality of life in patients with severe plaque psoriasis treated with biologics in 2011 – 2016.

Methods. Anonymized data of 47 primary naïve patients were included prospectively and analysed using database “PsoLT”. The clinical study was approved by regional biomedical ethics committee (No. BE-2-53). Treatment effectiveness was measured using Psoriasis Area and Severity Index (PASI) score and Dermatology Life Quality Index (DLQI) questionnaire. First three visits of clinical examination were performed every 3 months, correspondingly since fourth visit - every 6 months. Short-term biologic therapy effectiveness was evaluated based on 3rd visit results, long-term based on 12th visit results.

Results. For 7 patients biologics were changed, 15 were treated with combined therapy (biologic and methotrexate) and 25 with monotherapy. Subjects, who were treated with etanercept (n = 14), primary PASI mean – 20.45 (95%CI 14.34±26.56), while 13.13 (95%CI 8.85±17.41) for treated with ustekinumab (n = 8). Primary DLQI mean in etanercept and ustekinumab groups, 15 (95%CI 5.5±24.5) and 10 (95%CI 0.83±19.17) respectively. After a short-term therapy with etanercept and ustekinumab PASI means were 3.43 (95%CI 1.33±5.52) and 3.07 (95%CI 0.3±5.84) respectively. In a long-term therapy with etanercept and ustekinumab PASI means were 4.57 (95%CI 2.74±6.4) and 1.62 (95%CI 0±3.58) correspondingly. After a short-term etanercept and ustekinumab therapy DLQI means were 2.8 (95%CI 0±6.46) and 4.2 (95%CI 0±9.27) accordingly. In a long-term therapy with etanercept and ustekinumab DLQI means were 7.4 (95%CI 0.02±14.78) and 1.6 (95%CI 0±4.46) respectively.

Conclusions. 1. The short-term effectiveness of biologic therapy in patients with severe plaque psoriasis does not differ according to which biologic drug (etanercept or ustekinumab) is used. 2. Compared with etanercept, ustekinumab long-term therapy is more effective in patients with severe plaque psoriasis. 3. In patients with severe plaque psoriasis and treated with etanercept and ustekinumab life quality does not vary according to the duration of a therapy.

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Table 1. Mean PASI values with 95%CI in patients who were treated with etanercept and ustekinumab

Etanercept												
Visit	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th
95% CI 1	26.56	8.70	5.52	8.70	5.38	7.69	7.99	8.46	7.87	6.53	9.54	6.40
PASI	20.45	6.64	3.43	5.34	3.73	5.43	5.07	6.03	5.65	4.66	6.68	4.57
95% CI 2	14.34	4.58	1.33	1.98	2.07	3.17	2.15	3.59	3.44	2.80	3.82	2.74

Ustekinumab												
Visit	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th
95% CI 1	17.41	7.14	5.84	8.55	7.81	6.00	5.36	5.44	7.76	7.48	6.64	3.58
PASI	13.13	3.77	3.07	4.55	3.98	3.42	2.52	2.92	3.23	3.07	2.88	1.62
95% CI 2	8.85	0.40	0.30	0.55	0.16	0.83	0.00	0.39	0.00	0.00	0.00	0.00

CI - Confidence Interval; 95% CI 1 – upper bound for the 95% CI; 95% CI 2 – lower bound for the 95% CI; PASI - Psoriasis Area and Severity Index.

Table 2. Mean DLQI values with 95%CI in patients who were treated with etanercept and ustekinumab

Etanercept												
Visit	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th
95% CI 1	24.50	12.85	6.46	9.46	3.76	10.41	10.83	8.12	9.31	6.64	16.13	14.78
DLQI	15.00	6.60	2.80	4.60	2.00	5.00	4.40	3.00	3.80	3.40	9.00	7.40
95% CI 2	5.50	0.35	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.16	1.87	0.02

Ustekinumab												
Visit	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	11 th	12 th
95% CI 1	19.17	12.42	9.27	6.14	13.57	10.66	12.39	11.84	10.02	7.64	10.31	4.46
DLQI	10.00	7.20	4.20	1.80	6.20	4.60	5.80	5.80	4.00	2.20	4.20	1.60
95% CI 2	0.83	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

CI - Confidence Interval; 95% CI 1 – upper bound for the 95% CI; 95% CI 2 – lower bound for the 95% CI; DLQI - Dermatology Life Quality Index.

Key words

Psoriasis; Biological drugs; Therapy effectiveness; Quality of life