

Seven cancer patients receiving guselkumab for treatment of moderate-to-severe psoriasis

Luca Mastorino, Niccolò Siliquini, Gianluca Avallone, Michela Ortoncelli, Pietro Quaglino, Paolo Dapavo, Simone Ribero

Medical Science Department, Section of Dermatology, University of Turin, Italy

To the Editor:

Limited evidence on the use of biologic treatments in psoriatic patients with a history of malignancy is currently available in the literature. The recently published European guidelines recommend the use of anti-TNF, anti-IL17, and anti-IL23 biological drugs in this special population after discussion case-by-case with a cancer-specialist.¹ Recent data show successful treatment on biologics despite concurrent or previous malignancy in psoriatic patients but to date, there are poor experiences about Guselkumab in these patients.^{2,3} The role of IL-23 in tumorigenesis is contradictory: high levels are correlated with poor prognosis in many human neoplasms, but in contrast, it proved effective in inhibiting cell proliferation in some cases of leukemia.⁴ IL-23 inhibitors have shown efficacy and safety in the treatment of psoriasis.^{5,6} Guselkumab was the first IL-23 subunit p19 inhibitor monoclonal antibody to be approved in the United States and Europe. In phase III pre-clinical trials (VOYAGE 1 and VOYAGE 2) two cases of prostate cancer, one case of breast cancer, and three cases of non-melanoma skin cancers (NMSC) were reported.^{5,6} Kamiya *et al.* reported successful treatment of psoriasis Vulgaris with guselkumab in a patient with non-small lung cancer.⁷

In our clinic, Guselkumab was prescribed to 75 psoriatic patients, all with uncontrolled psoriasis and eligible for treatment with biological therapy, seven of whom had a previous diagnosis of cancer (Table 1).

Three patients (1,4,5) had a history of previous NMSC, a category of tumors whose incidence is higher in psoriatic patients. One patient among these had a history of basal cell carcinoma (BCC) and squamous cell carcinoma (SCC) and Guselkumab was the first biological drug he received. Only patients 4 and 5 received other biological treatments before Guselkumab (Etanercept, Adalimumab, and Ustekinumab) and both have experienced the onset of BCCs since the start of biolog-

ical treatment. In particular, patient 4 reports a history of multiple BCCs (the first dating back to 2000) whose frequency did not increase after the introduction of the first biological drug in 2011, despite the risk associated with the use of anti-Tumor Necrosis Factor an (anti-TNF α) drugs.⁴ These patients needed only surgical treatment.

Patient 7 is a biologic-naive woman reporting previous stage Ia melanoma, surgically treated, which occurred 8 years before starting Guselkumab therapy and for which regular follow-up is ongoing.

History of leiomyosarcoma of stage Ib dating back to 2000 and of stage I clear cell renal carcinoma dating back to 2014 were respectively reported by patients 2 and 3. In both cases, given the low degree of illness, only a surgical approach was necessary. Both patients are biological-naive and report a regular follow-up from the beginning of treatment.

Patient 6 experienced stage IIA ductal breast cancer, treated with surgery, radiotherapy, and hormone therapy until February 2020. A favorable opinion from the oncologist was obtained before starting treatment with Guselkumab. To date, the follow-up has been regular.

Only patient 1 reported a period of immunosuppressive agent treatment that occurred before cancer diagnosis.

All the patients have been treated with Guselkumab for at least 11 months reaching PASI>70 in 6 out of 7 cases. Only patients 4 interrupted Guselkumab after almost one year due to intolerance.

To our knowledge, this is the first case series of cancer patients receiving Guselkumab for the treatment of moderate-to-severe psoriasis. All patients experienced low-grade neoplasia for which Guselkumab does not seem to raise concerns about possible cancer recurrence, showing more safety and resulting in more reliability than traditional immunosuppressive agents for this category of patients. Surely proof of concept studies is required to clearly define the safety profiles of this biological therapy in patients with a history of neoplasia.

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Correspondence: Luca Mastorino, Medical Science Department, Section of Dermatology, University of Turin, Via Cherasco 23, Turin, Italy

E-mail: simone.ribero@unito.it

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Table 1. Summary.

Patient	Age	Sex	Cancer/year of diagnosis	Stage	Treatment	Follow-up	Previous immunosuppressive treatment	Previous biologic treatment	Date of first biologic therapy	Years from cancer diagnosis and Guselkumab start	Follow-up under Guselkumab	Absolute PASI at start date	Absolute PASI at 48 weeks
1	81	F	ScC 2017	Bcc 2017	li	Surgery	Regular	Methotrexate	None	3	14 months	4	1
2	90	M	Leiomyosarcoma 2000	Ib	Surgery	Regular	None	None	None	20	11 months	3.5	2
3	61	M	Clear cell kidney cancer 2014	I	Radical nephrectomy+ lymphadenectomy	Regular	None	None	None	6	12 months	9.5	1.9
4	66	F	Multiple bccs since 2000		Surgery	BCC's insurgent during treatment with biologics	Methotrexate	Etanercept, adalimumab	2011		12 months	9.5	1
5	74	M	Bccs 2015 and 2020		Surgery	Regular	None	Ustekinumab	2015		14 months	15	4
6	52	F	Breast cancer 2014	Iia	Wide resection+SLN+RT+ OT with tamoxiphene	Regular	None	None	None	6	14 months	10	0
7	57	F	Melanoma 2012	Ia	Surgery	Regular	None	None	None	8	15 months	12.6	0

PASI: Psoriasis Area Severity Index, BCC: Basal Cell Carcinoma, SCC: Squamous Cell Carcinoma, SLN: sentinel lymph node, RT: radiotherapy, OT: ormonetherapy.

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