

las 2 semanas del omalizumab, sin incidencias. Al reiniciar el metotrexato presentó un episodio de transaminitis que se resolvió al reducir la dosis. No se han producido interacciones ni infecciones durante el tratamiento combinado.

Se trata del primer caso descrito en la literatura de un paciente con artritis reumatoide y NUV, ambas enfermedades autoinmunes de difícil manejo. El paciente presentó una respuesta muy rápida y eficaz a omalizumab con total desaparición de las lesiones.

Bibliografía

1. Fueyo-Casado A, Campos-Muñoz L, González-Guerra E, Pedraz-Muñoz J, Cortés-Toro JA, López-Bran E. Effectiveness of omalizumab in a case of urticarial vasculitis. *Clin Exp Dermatol*. 2017;42:403–5.
 2. Rattananukrom T, Svetvilas P, Chanpraphap K. Successful treatment of normocomplementemic urticarial vasculitis with omalizumab: A report of three cases and literature review Asian. *Pac J Allergy Immunol*. 2019, <http://dx.doi.org/10.12932/AP-050918-0402>.
 3. De Brito M, Huebner G, Murrell D, Bullpitt P, Hartmann K. Normocomplementemic urticarial vasculitis: Effective treatment with omalizumab. *Clin Transl Allergy*. 2018;8:37.
 4. Kai AC, Flohr C, Grattan CE. Improvement in quality of life impairment followed by relapse with 6-monthly periodic administration of omalizumab for severe treatment-refractory chronic urticaria and urticarial vasculitis. *Clin Exp Dermatol*. 2014;39:651–2.
- ^a Unidad de Dermatología, Hospital de Igualada-Consorti Sanitari Anoia, Igualada, Barcelona, España
^b Servicio de Reumatología, Hospital de Bellvitge, Hospitalet de Llobregat, Barcelona, España
^c Servicio de Farmacia, Hospital de Igualada-Consorti Sanitari Anoia, Igualada, Barcelona, España
^d Unidad de Reumatología, Hospital de Igualada-Consorti Sanitari Anoia, Igualada, Barcelona, España
- * Autor para correspondencia.
Corre electrónico: dgrados@gmail.com (D. Grados).
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Exposure to belimumab in the first trimester of pregnancy in a young woman with systemic lupus erythematosus



Exposición a belimumab en el primer trimestre de embarazo en una mujer joven con lupus eritematoso sistémico

Sr. Editor:

Mister editor, belimumab is a fully human IgG1-λ monoclonal antibody that binds to soluble human B-cell survival factor (known as BLyS or BAFF) and inhibits its biological activity.¹ Belimumab was approved for treatment of systemic lupus erythematosus (SLE) because it showed superiority to the standard of care, excluding patients with active nephritis or central nervous system disease.^{1,2} Here, we report a case of a SLE patient that was incidentally exposed to belimumab during the first trimester of pregnancy.

A 27-year-old Caucasian female with SLE has been followed for this disease for 10 years. She began with arthritis in her

hands, malar rash, oral ulcers, and serositis. Her immunology laboratory had ANA 1/1280, homogenous nuclear pattern, positive anti-dsDNA, positive anti Ro and positive lupus anticoagulant, as well as low C3 and C4 complement levels. She followed treatments with corticosteroids, hydroxychloroquine and methotrexate, with a good initial response, but effectiveness decreased over time. She started to be refractory concerning serositis, arthritis, oral ulcers and skin abnormalities related to these medications, and never had lupus nephritis or neurological compromise. Treatment with belimumab began two years before pregnancy. During this time the disease was successfully controlled, with 0 SLEDAI (SLE Disease Activity Index) points and without adverse events.

She discontinued coming to medical controls; and during this time she got pregnant. When controls were resumed, at week twelve of pregnancy, belimumab was stopped. Her pregnancy was successful, with no SLE reactivation. At week 39.6, due to oligohydramnios and lack of adequate progression, she underwent a cesarean section without any complication. The weight of the newborn was 3520 grams.

Table 1

Cumulative pregnancy outcomes for belimumab from clinical trials, spontaneous reports, post-marketing surveillance reports, and the Belimumab Pregnancy Registry (BPR) through 08 March 2016.⁷

Outcomes	Non-BPR ^a	BPR	Total pregnancies
<i>Total pregnancies</i>	275	24	299
Lost to follow up or unknown	45	1	46
Pregnancy ongoing	36	2	38
<i>Total pregnancies with known outcomes</i>	194	21	215
Elective termination with no apparent congenital anomaly	55	1	56
Elective termination with congenital anomaly	0	0	0
<i>Total pregnancies with known outcomes excluding elective terminations</i>	139	20	159
Spontaneous abortion with no apparent congenital anomaly (<22wks)	47	3	50
Spontaneous abortion with apparent congenital anomaly (<22wks)	2	0	2
Still birth with no apparent congenital anomaly (<22wks)	3	0	3
Spontaneous abortion + stillbirth/(total pregnancies with known outcomes excluding elective terminations)	52/139 (37.4%)	3/20 (15.0%)	55/159 (34.6%)
<i>Total live births (infants)</i>	85	17	102
Live births with no apparent congenital anomaly	81	13	94
Live births with apparent congenital anomaly ^b	4/85 (4.7%)	4/17 (23.5%)	8/102 (7.8%)

^a Non-BPR includes clinical trial outcomes, spontaneous pregnancy reports, and post-marketing surveillance reports outside of the Belimumab Pregnancy Registry.

^b This does not include pregnancies yet to deliver.

This case was an accidental condition, where the patient did not follow her medical controls and never referred to a rheumatologist for pre-pregnancy counseling.

Belimumab was well tolerated at pharmacologically active dose levels in pregnant monkeys and their infants after exposure throughout pregnancy.³ No formal clinical studies have been conducted in pregnant women.^{4,5}

The Belimumab Pregnancy Registry (BPR) aims to evaluate pregnancy and infant outcomes in women with SLE exposed to belimumab within the 4 months prior to and/or during pregnancy.⁶ Data of clinical trial outcomes, spontaneous pregnancy reports, and post-marketing surveillance reports outside of the BPR have reported a total of 275 pregnancies.⁷ Total outcomes, BPR and non-BPR, eight were live births with apparent congenital anomaly. Table 1 shows these outcomes.⁷ The congenital abnormalities reported in live infants of patients exposed to belimumab included Dandy Walker syndrome, bilateral enlarged kidneys, pulmonic stenosis, mild Ebstein anomaly, unbalanced translocation between chromosomes 11 and 13, bilateral club foot, and ventricular septal defect.⁸

The EULAR points for use of belimumab before pregnancy, during pregnancy and lactation is that there is limited documentation and should be replaced before conception by other medication.⁹ The British Society for Rheumatology (BSR) and the British Health Professionals in Rheumatology (BHP) guideline announces a similar statement, saying that there is insufficient data to recommend belimumab in pregnancy and an unintentional first trimester exposure is unlikely to be harmful.¹⁰

There is insufficient evidence to prove absolute safety for use belimumab during pregnancy. We need human clinical studies evaluating the use of belimumab in pregnant women to know the usefulness and safety of this drug. Over time, data from the BPR would be useful to assess safety of this agent for use in pregnancy SLE patients.⁵

References

- Wallace DJ, Stohl W, Furie RA, Lisse JR, McKay JD, Merrill JT, et al. A phase II, randomized, double-blind, placebo-controlled, dose-ranging study of belimumab in patients with active systemic lupus erythematosus. *Arthritis Rheum.* 2009;61:1168.
- Belmont HM. Treatment of systemic lupus erythematosus – 2013 update. *Bull Hosp Jt Dis.* 2013;71:208.
- Auyeung-Kim DJ, Devalaraja MN, Migone TS, Cai W, Chellman GJ. Developmental and peri-postnatal study in cynomolgus monkeys with belimumab, a monoclonal antibody directed against B-lymphocyte stimulator. *Reprod Toxicol.* 2009;28:443–55.
- Use of intravenous (IV) benlysta in pregnant patients with systemic lupus erythematosus (SLE). GlaxoSmithKline Data on File.
- Danve A, Perry L, Deodhar A. Use of belimumab throughout pregnancy to treat active systemic lupus erythematosus: a case report. *Semin Arthritis Rheum.* 2014;44:195–7.
- Bassiri A. The Belimumab Pregnancy Registry. Glaxo Smith Kline (GSK) Group of Companies; March 2016. Data on file.
- Cumulative pregnancy outcomes for belimumab from clinical trials, spontaneous reports, post-marketing surveillance reports, and the Belimumab Pregnancy Registry (BPR). Glaxo Smith Kline (GSK) Group of Companies; March 2016. Data on file.
- Kumthekar A, Danve A, Deodhar A. Use of belimumab throughout 2 consecutive pregnancies in a patient with systemic lupus erythematosus. *J Rheumatol.* 2017;44:1416–7.
- Skorpen CG, Hoeltzenbein M, Tincani A, Fischer-Betz R, Elefant E, Chambers C, et al. The EULAR points to consider for use of antirheumatic drugs before pregnancy, and during pregnancy and lactation. *Ann Rheum Dis.* 2016;75:795–810.
- Flint J, Panchal S, Hurrell A, van de Venne M, Gayed M, Schreiber K, et al. BSR and BHP guideline on prescribing drugs in pregnancy and breastfeeding. Part I: Standard and biologic disease modifying anti-rheumatic drugs and corticosteroids. *Rheumatology (Oxford).* 2016;55:1693–7.

Ignacio Javier Gandino *, Sophia Lutgen, María Cristina Basta, Sebastián Andrés Muñoz

División Clínica Médica, Hospital General de Agudos Juan A. Fernández, Ciudad Autónoma de Buenos Aires, Argentina

* Corresponding author.

E-mail address: ignaciogandino@gmail.com (I.J. Gandino).

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