

Efalizumab

Efalizumab (trade name Raptiva, Genentech, Merck Serono) is a formerly available medication designed to treat autoimmune diseases, originally marketed to treat psoriasis. As implied by the suffix *-zumab*, it is a recombinant humanized monoclonal antibody administered once weekly by subcutaneous injection. Efalizumab binds to the CD11a subunit of lymphocyte function-associated antigen 1 and acts as an immunosuppressant by inhibiting lymphocyte activation and cell migration out of blood vessels into tissues. Efalizumab was associated with fatal brain infections and was withdrawn from the market in 2009.^[1]

Known side effects include bacterial sepsis, viral meningitis, invasive fungal disease and progressive multifocal leukoencephalopathy (PML), a brain infection caused by reactivation of latent JC virus infection.^{[2][3]} Four cases of PML were reported in plaque psoriasis patients, an incidence of approximately one in 500 treated patients.^[1]

Due to the risk of PML, the European Medicines Agency and the FDA recommended suspension from the market in the European Union and the United States, respectively.^[4] In April 2009, Genentech Inc. announced a phased voluntary withdrawal of Raptiva from the U.S. market.^{[1][5]}

1 References

- [1] Major, E. (2010). “Progressive multifocal leukoencephalopathy in patients on immunomodulatory therapies”. *Annual Review of Medicine*. **61** (1): 35–47. doi:10.1146/annurev.med.080708.082655. PMID 19719397.
- [2] “Efalizumab FDA Warning”. Retrieved 7 December 2008.
- [3] Berger, J. R.; Houff, S. A.; Major, E. O. (2009). “Monoclonal antibodies and progressive multifocal leukoencephalopathy”. *MAbs*. **1** (6): 583–589. doi:10.4161/mabs.1.6.9884. PMC 2791316. PMID 20073129.
- [4] “EMA press release regarding suspension” (PDF). Retrieved 20 February 2009.
- [5] “Genentech Announces Voluntary Withdrawal of Raptiva from the U.S. Market” (Press release). Genentech, Inc. 8 April 2009. Retrieved 9 April 2009.

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