Léčba třetí linie

- **Fototerapie:** **UV zářiče (kombinace UVA a UVB, UVB /311nm/, UVA-1 /340-400nm/)**
- **Steroidy systémově: krátkodobě p.o., i.v.**
- **Systémová imunosupresivní léčba:**

  ciclosporin (Sandimmun Neoral, Consupren, Equoral) 3-5 mg/kg/den

  azathioprin (Azamun, Imuran) 2,5-3 mg/kg/den

  methotrexat (Methotrexat) 7,5-25 mg/ 1 den v týdnu

  mycophenolat mofetil (CellCept) 2 g/den

TABLE I. Humanized antibodies and FPs in clinical trials or introduced into clinical practice

Name	Target antigen-molecule	Application
Antibodies		
OKT3	CD3	Renal transplants
Basiliximab (chimeric)	IL-2 receptor α-chain	Organ transplants
Daclizumab (humanized)	IL-2 receptor α-chain	Organ transplants, noninfectious uveitis
Pavilizumab	Respiratory syncytial virus	Infants with bronchopulmonary dysplasia
Trastuzumab	Receptor tyrosine kinase ERBB2	Cancer
Cetuximab	Receptor tyrosine kinase EGFR	Cancer
Bevacizumab	VEGFR1 and VEGFR2	Cancer (metastatic)
Rituximab	CD20	B-cell lymphomas, autoimmunity
Ibritumomab (yttrium 90 labeled)	CD20	B-cell lymphomas
Tositumomab (iodine 131 labeled)	CD20	B-cell lymphomas
Alemtuzumab	CD52	Hematopoietic malignancies
Epratuzumab	CD22	B-cell lymphomas
Infliximab	TNF-α	RA, CD
Adalimumab	TNF-α	RA, CD
MRA	IL-6 receptor	RA
Anti-IL-2	IL-2	RA
Efalizumab	CD11a	Psoriasis
IDEC-131	CD40L	SLE
Ruplizumab	CD40L	SLE
Omalizumab	IgE	Asthma
FPs		
Etanercept	TNF receptor (p75)	RA
Abatacept	CTLA4	RA, psoriasis

TABLE I. Change from baseline in cell counts of the bronchial submucosa after 16 weeks of treatment with omalizumab or placebo

Cell	Omalizumab (n = 14)	Placebo (n = 14)
Basophils	−1.02 (−8.49 to 3.89)	1.07 (−9.86 to 6.83)
Mast cells	−8.77 (−20.94 to 29.42)	3.24 (−10.76 to 31.28)
Eosinophils	−3.95* (−20.95 to −0.10)	0.35 (−40.80 to 38.47)
T lymphocytes		
$CD3^+$	−36.96† (−258.00 to 79.54)	40.52 (−50.00 to 199.09)
$CD4^+$	−27.81† (−149.15 to 56.17)	40.90 (−28.02 to 138.89)
$CD8^+$	−8.95* (−78.31 to 32.22)	15.71 (−22.07 to 35.92)
B lymphocytes ($CD20^+$)	−0.83* (−20.02 to 6.53)	3.36 (−11.62 to 82.09)
FcεRI receptor	−21.26‡ (−48.00 to 3.13)	2.44 (−16.15 to 25.65)
FcεRII receptor	−0.76 (−5.98 to 0)	−0.73 (−5.02 to 1.55)
$IL\text{-}4^+$ (cell surface)	−15.28‡ (−37.74 to 0.29)	0 (−20.21 to 14.67)
$IL\text{-}4^+$ (cytoplasmic)	0.47 (−7.61 to 13.96)	0.72 (−8.69 to 15.26)
$IL\text{-}5^+$ cells	−0.44 (−11.06 to 6.33)	1.41 (−12.22 to 18.69)
IgE^+ (cell surface) cells	−31.33‡ (−92.45 to −6.44)	6.16 (−89.39 to 35.24)

Reprinted with permission from Djukanović et al.[20] Units are presented as cells per square millimeter (median [range]).
*$P \leq .05$, †$P \leq .01$, and ‡$P \leq .001$ versus placebo (Wilcoxon test).

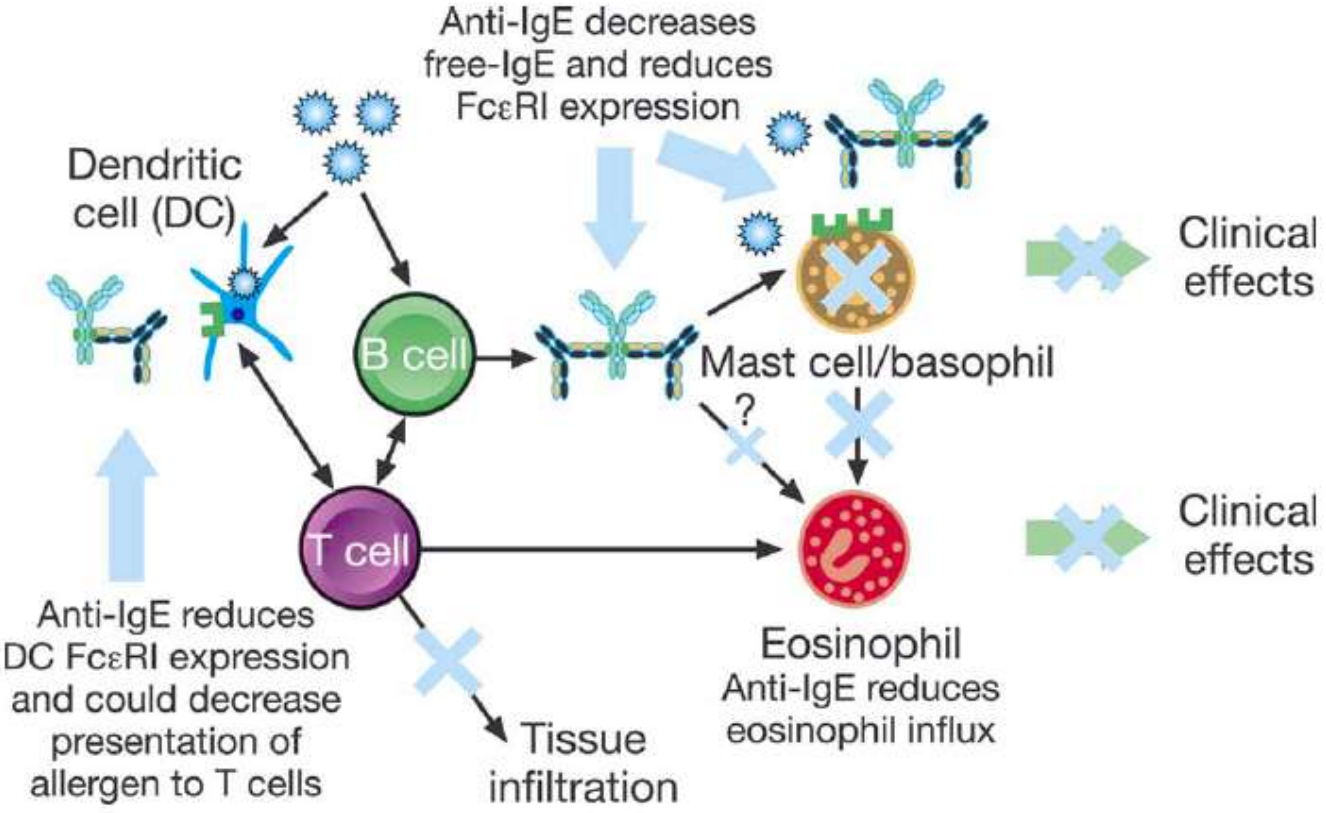

FIG 2. Proposed mechanisms of action of omalizumab. Omalizumab decreases free IgE levels and reduces FcεRI receptor expression on mast cells and basophils. This results in decreased mast cell activation and sensitivity, leading to a reduction in eosinophil influx and activation. Anti-IgE treatment with omalizumab might result in decreased mast cell survival. Omalizumab also reduces dendritic cell FcεRI receptor expression.

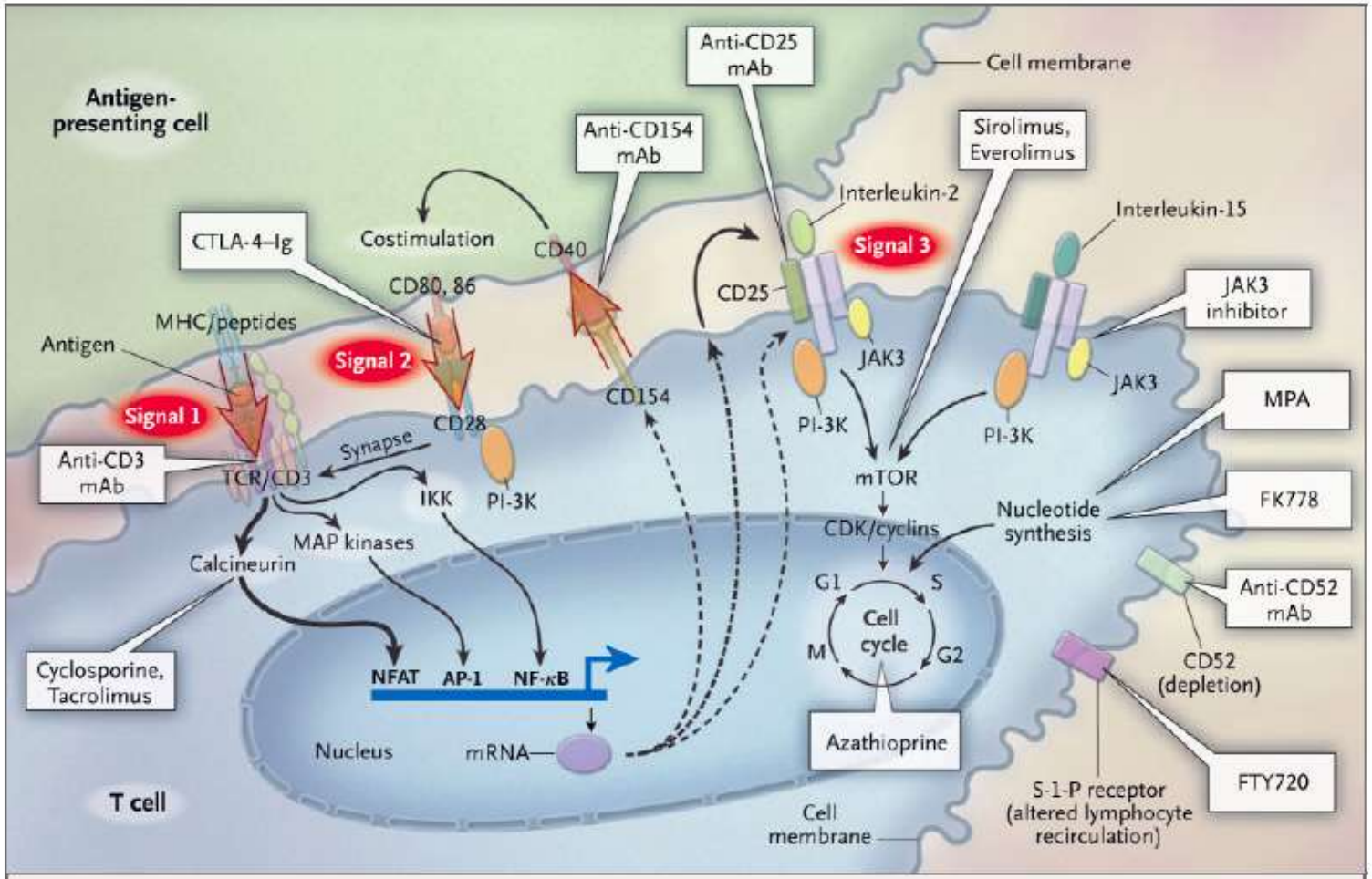

Figure 2. Individual Immunosuppressive Drugs and Sites of Action in the Three-Signal Model.

Anti-CD154 antibody has been withdrawn from clinical trials but remains of interest. FTY720 engagement of sphingosine-1-phosphate (S-1-P) receptors triggers and internalizes the receptors and alters lymphocyte recirculation, causing lymphopenia. Antagonists of chemokine receptors (not shown) are also being developed in preclinical models. MPA denotes mycophenolic acid.