A Practical Guide to Immunofluorescence

Table 1: Classification based on diseases

	Lesional skin	Non-lesional skin
Bullous disease		
Pemphigus (all types)	Intercellular IgG	Intercellular IgG
Pemphigoid	BMZ – linear IgG and/or C3. Sometimes other Ig's	BMZ – linear IgG and/or C3. Sometimes other Ig's
Dermatitis herpetiformis	-	BMZ – linear Dermal papillae – granular IgA, sometimes C3
Epidermolysis bullosa acquisita[1]	BMZ – linear IgG and/or C3. Sometimes other Ig's	BMZ – linear IgG and/or C3. Sometimes other Ig's
Herpes gestationis	BMZ – linear C3 rarely Ig's	-
Linear IgA disease	-	[2]BMZ – linear IgA sometimes other Ig's
Connective tissue		
Discoid LE	D/e junction – coarse granular mostly IgG, other Ig's,C3 (50-90% of cases)	Negative
Systemic LE	D/e junction – coarse granular mostly IgG, other Ig's,C3 (100% of cases)	D/e junction – coarse granular mostly IgG, other Ig's,C3
Dermatomyositis	negative	
Vascular		
Porphyria cutanea tarda	Dermal vessels show thickened BM's – smooth IgG BMZ – small deposits	-
Acute vasculitis	Dermal blood vessels C3,IgM (if early)	
Henoch-Schonlein purpura	Dermal blood vessels IgA, C3,IgM (if early)	

NON-SPECIFIC – Granular C3 and IgM are often present at BMZ and should be interpreted with caution.

[1] Require salt split skin to differentiate EBA (deposits on floor) from BP (deposits on roof)
[2] The presence of IgA is not diagnostic as seen in other bullous diseases.

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20/08/2004

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Table 2: Classification based on level of staining.

Level of staining	Type of staining	Antibody	Diagnosis
Epidermal	Intercellular	IgG,C3	Pemphigus (all types)
	Nuclear (keratinocytes)	IgG	Autoimmune diseases (eg SLE, mixed connective tissue)
Basement membrane zone (BMZ)	Smooth linear	IgG, C3, +/- IgA	Bullous pemphigoid, EBA
		IgA, C3	Linear IgA disease
		C3	Herpes gestationis
	Granular	IgG,C3	Lupus (DLE or SLE)
		Weak IgM,C3	Non-specific
Dermal papillae	Granular	IgA, C3	Dermatitis herpetiformis
Dermal collagen	Smooth	IgG	Background
Dermal blood vessels	Smooth	IgG, IgA, IgM	Porphyria CT
	Granular	C3	Acute vasculitis
		IgA +/- C3	HSP

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Figure 1: Pemphigus – Intercellular IgG

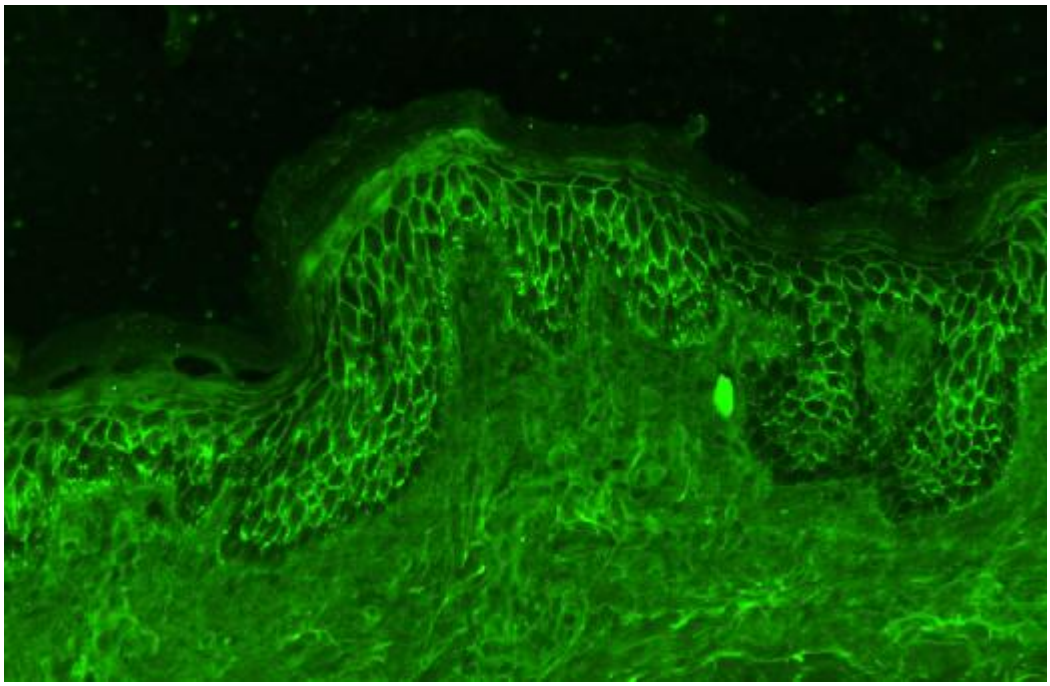

Figure 2 :Autoimmune disease – Nuclear staining for IgG

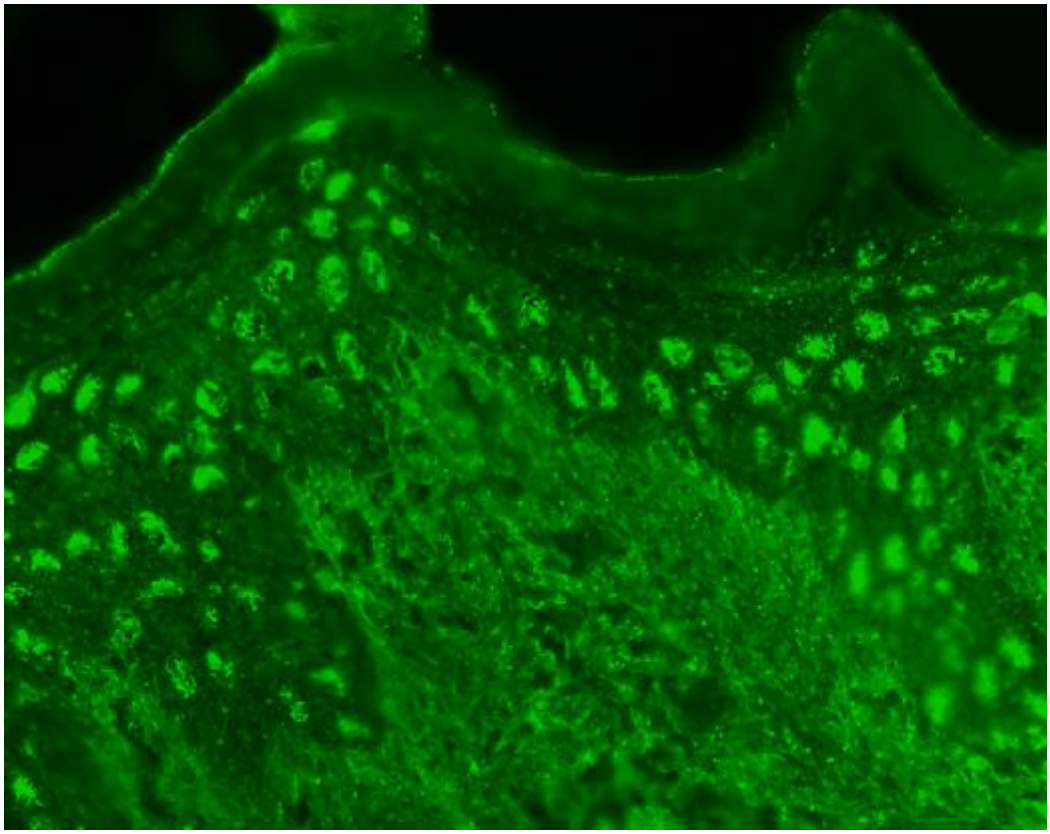

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Figure 3: Bullous pemphigoid – Linear C3 and IgG (sometimes IgA).

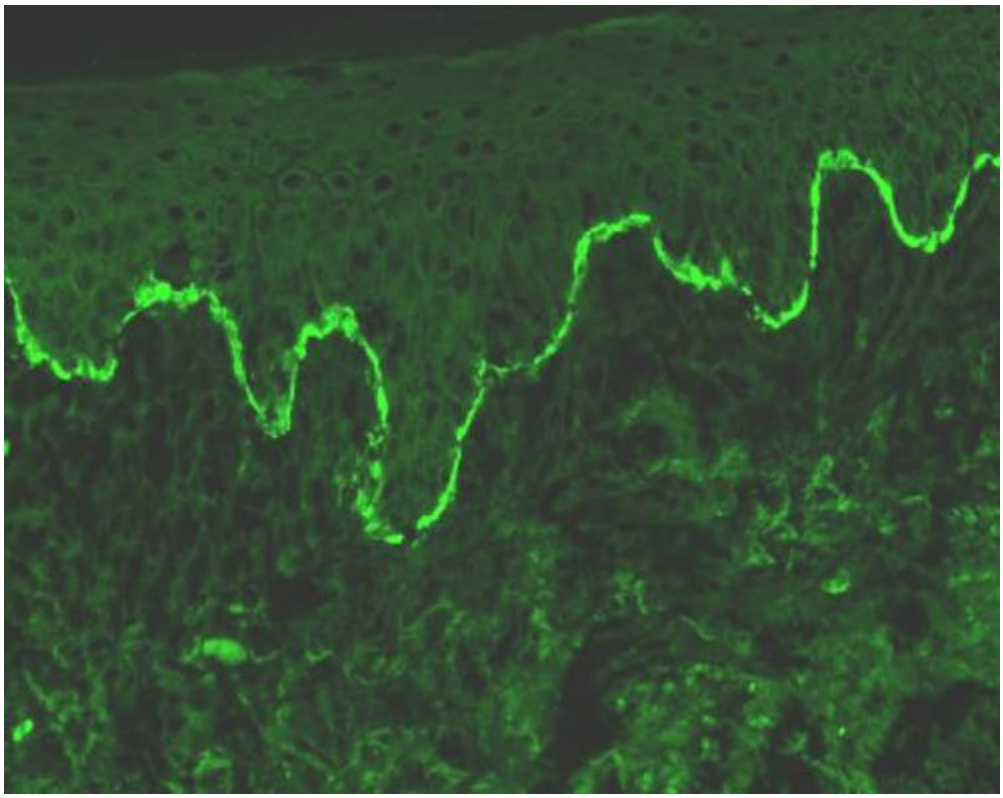

Figure 4: Lupus – granular IgG, C3 (NB background staining of the dermal collagen)

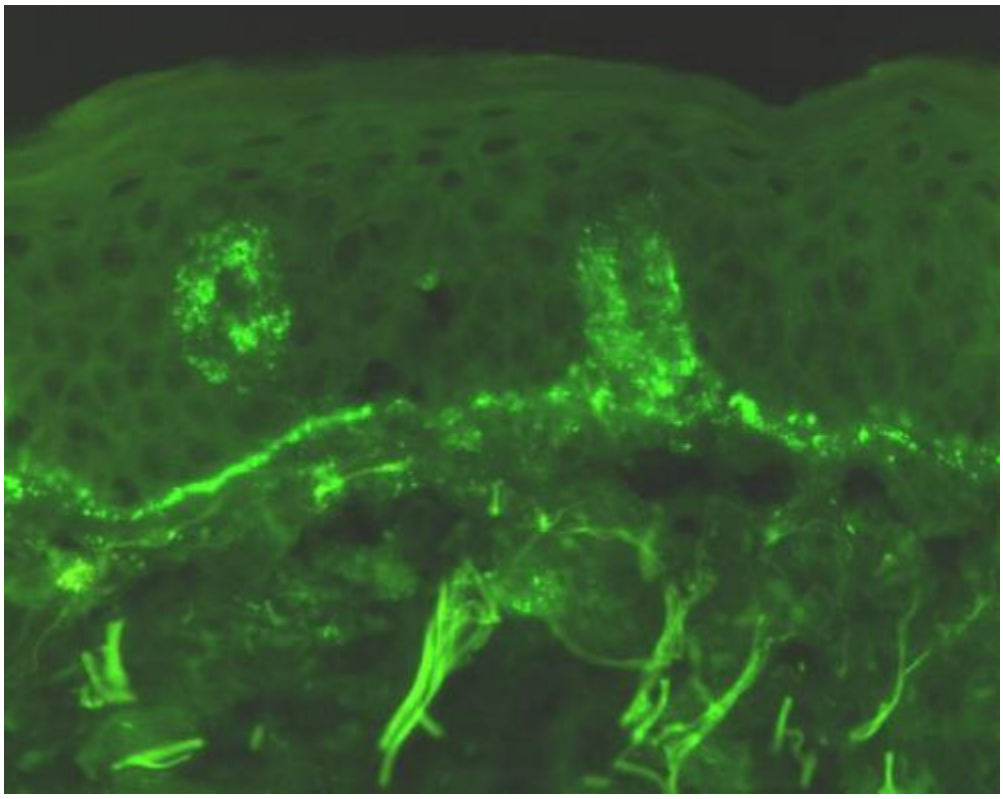

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Figure 5: Dermatitis herpetiformis – granular IgA in dermal papillae

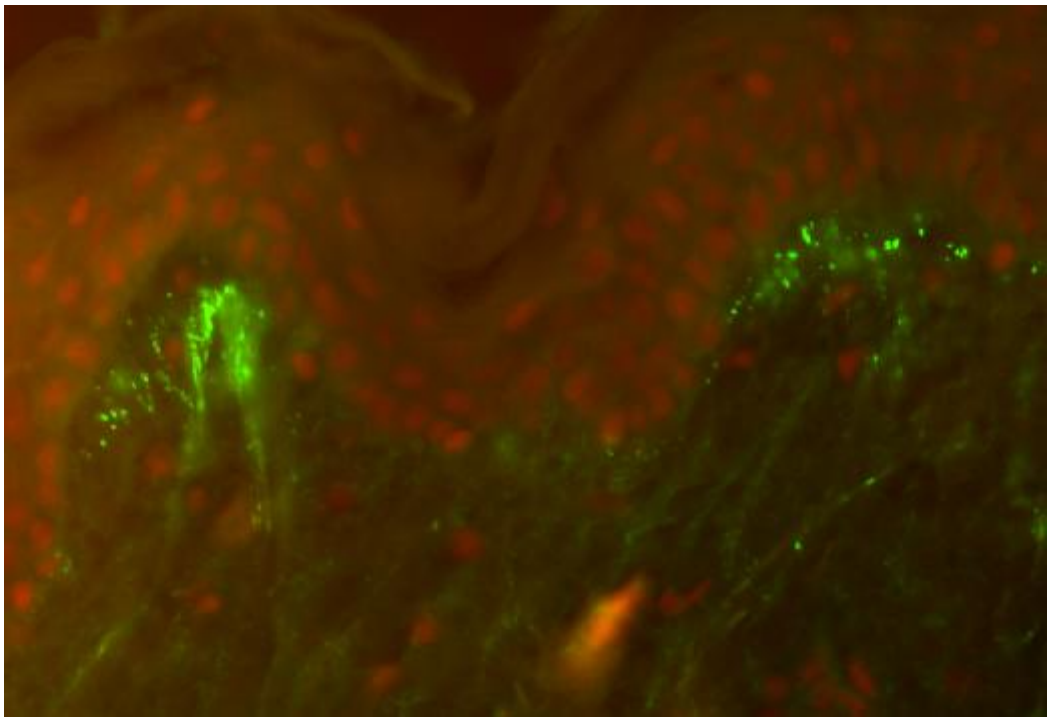

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Figure 6:Acute vasculitis – C3 in vessel walls

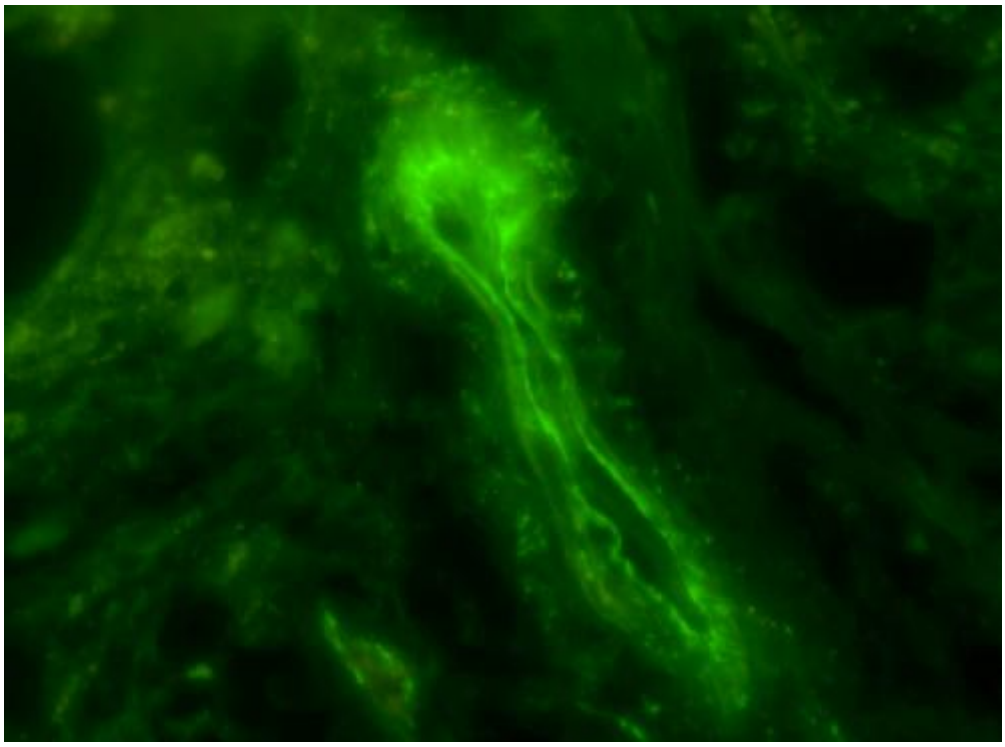
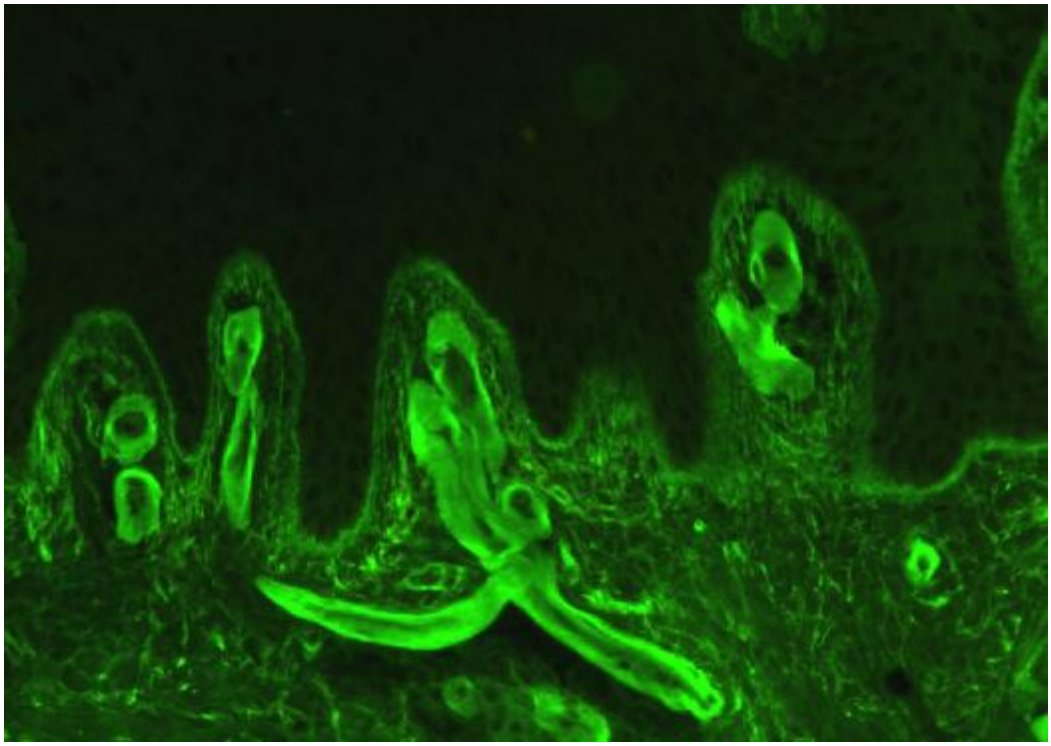


Figure 7: Porphyria cutanea tarda – smooth IgG in dermal blood vessel walls



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