

Proteomic analysis of glomeruli from patients

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RESULTS

Table 2: Change in abundance (fold change) of quantified complement and complement related proteins in progressive vs non-progressive IgAN

UniProt Accession	Unique Peptides	Description	Fold Change	T test
Complement system components				
P02746	4	Complement C1q subcomponent subunit B	1.15	0.48
P02747	4	Complement C1q subcomponent subunit C	1.89	0.04
P00736	2	Complement C1r subcomponent	2.17	0.0003
P09871	2	Complement C1s subcomponent	1.50	0.03
P00751	17	Complement factor B	1.18	0.43
P06681	2	Complement C2	2.73	0.14
P01024	105	Complement C3	1.39	0.01
P0C0L4	44	Complement C4-A	1.27	0.35
P0C0L5	5	Complement C4-B	1.73	0.03
P01031	39	Complement C5	1.64	0.0046
P13671	16	Complement component C6	2.11	0.0002
P10643	14	Complement component C7	2.15	0.0002
P07360	10	Complement component C8 gamma chain	1.62	0.0003
P07357	19	Complement component C8 alpha chain	1.88	0.0004
P07358	14	Complement component C8 beta chain	1.74	0.01
P02748	25	Complement component C9	1.46	0.05
Complement system regulators				
P13987	2	CD59 glycoprotein	1.29	0.11
P10909	14	Clusterin	1.75	0.0003
P08603	38	Complement factor H	1.43	0.02
Q03591	9	Complement factor H-related protein 1	1.63	0.03
P36980	3	Complement factor H-related protein 2	2.33	0.01
Q02985	4	Complement factor H-related protein 3	1.97	0.08
Q9BXR6	22	Complement factor H-related protein 5	1.73	0.0029
P17927	13	Complement receptor type 1	0.62	0.025
P04003	14	C4b-binding protein alpha chain	2.48	0.02
P04004	18	Vitronectin	1.14	0.29
P05155	4	Plasma protease C1 inhibitor	1.27	0.22

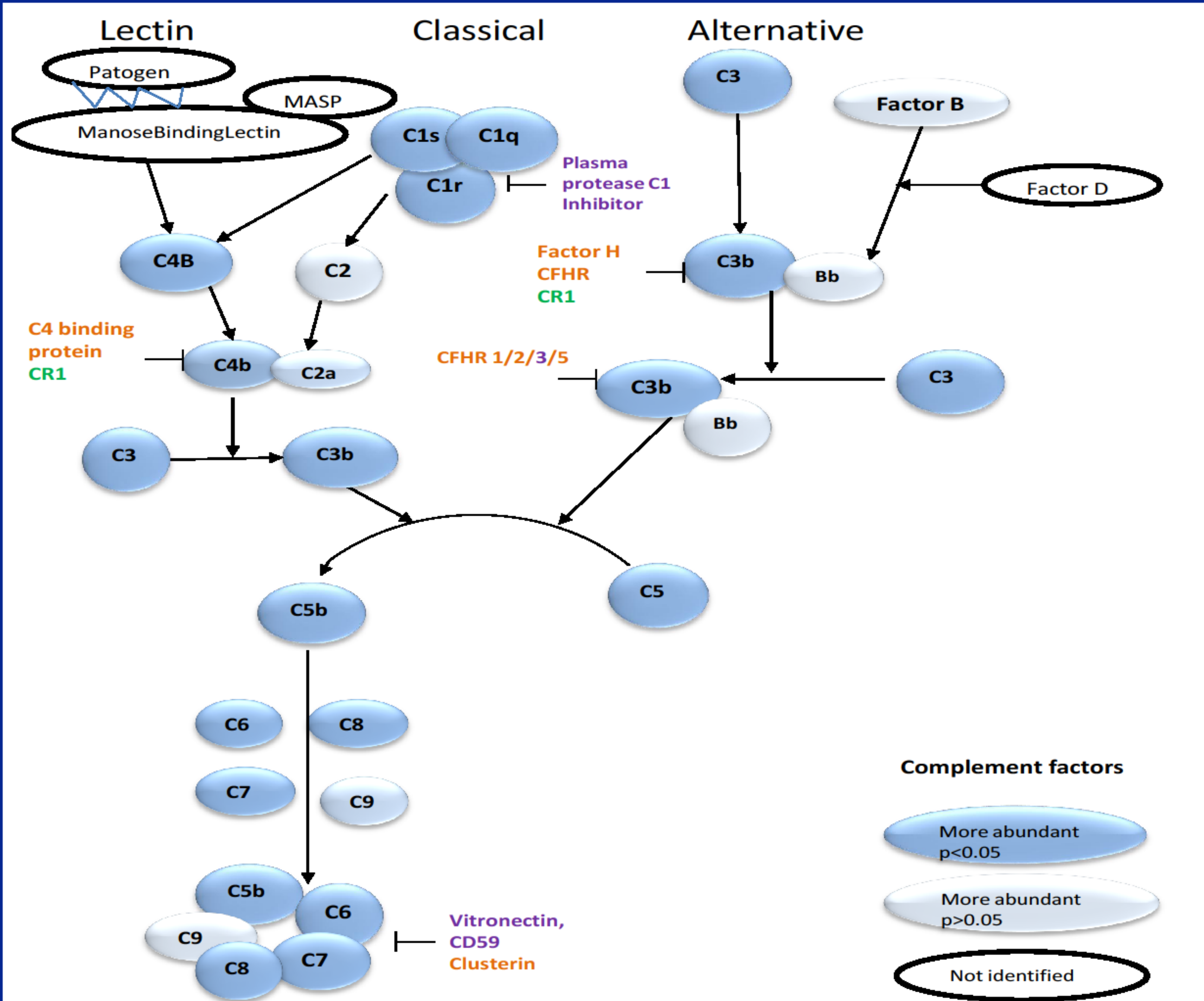
RESULTS

IgAN without progression	IgAN with progression

	IgAN without progression	IgAN with progression
N	16	9
Year of diagnosis	1996 ± 3.4	1998 ± 5.7
Proportion female	12.5%	33.3%
Age (years)	31.4 ± 13.4	31.2 ± 15.8
Serum creatinine (mol/l)	91.5 ± 21.5	105.8 ± 25.6*
Estimated glomerular filtration rate (ml/min/1.73m ²)	92.5 ± 23.3	74.1 ± 21.9*
Systolic blood pressure (mmHg)	127.2 ± 14.3	135.4 ± 25.8
Urinary protein (grams/24h)	1.76 ± 1	2.0 ± 1.98 *
No of years of follow-up	16.3 ± 3.4	
No of years from biopsy to ESRD		5.8 ± 2.5

- A total of 2018 were identified with 2 or more unique peptides and were used in quantitative analyses.
- In progressive vs non-progressive IgAN, 196 proteins displayed a significant differential abundance, among these, 19 proteins were related to the complement system.

Associations between the complement related proteins and clinical markers were investigated. These analyses showed that C1r, C1s, C5, C6, C8, C9 and Clusterin had higher abundance with lower eGFR. There was no significant associations with urinary protein excretion but there was increased abundances of the proteins C1r, C1s, C4, C5, C8, C9, Complement factor H, Complement factor H-related protein 3, and C4b binding protein alpha with increasing systolic blood pressure.



Complement factors

More abundant
 $p \leq 0.05$

More abundant

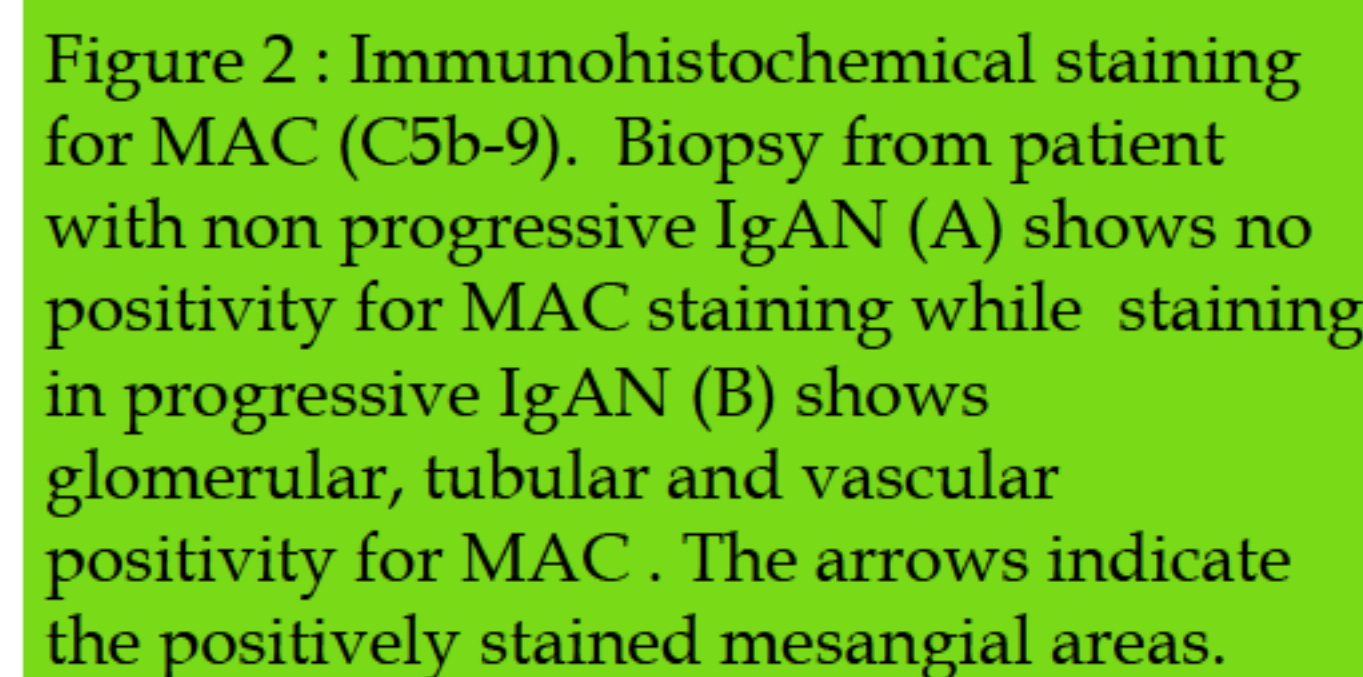
Not identified

Complement mediators

More abundant $p < 0.05$

More abundant $p > 0.05$

Less abundant, $p < 0.05$



CONCLUSION

Higher glomerular abundance of complement related proteins were associated with a progressive clinical course in IgAN