

Article

Distinguishing invasive from chronic pulmonary infections: host pentraxin 3 and fungal siderophores in bronchoalveolar lavage fluids

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Supplementary Data S1: Pentraxin 3 median concentration, cut-off, and Receiver Operating Characteristic analysis

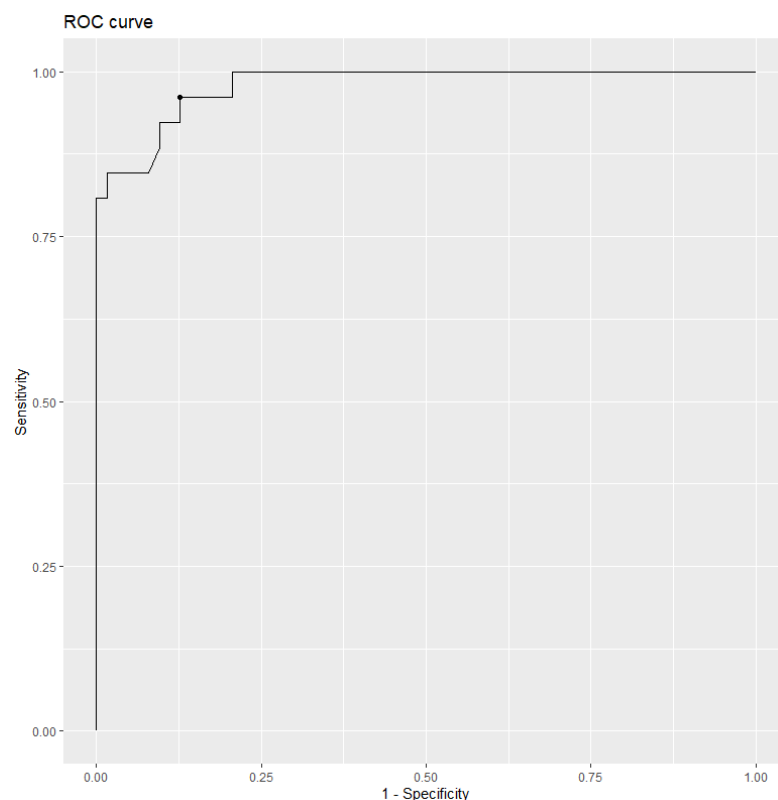
S1.1. PTX3 median concentrations:

Ptx3 (pg/mL)	
IPA	4613
CPA	1746
IPM	4326
FCol	242
BInf	224

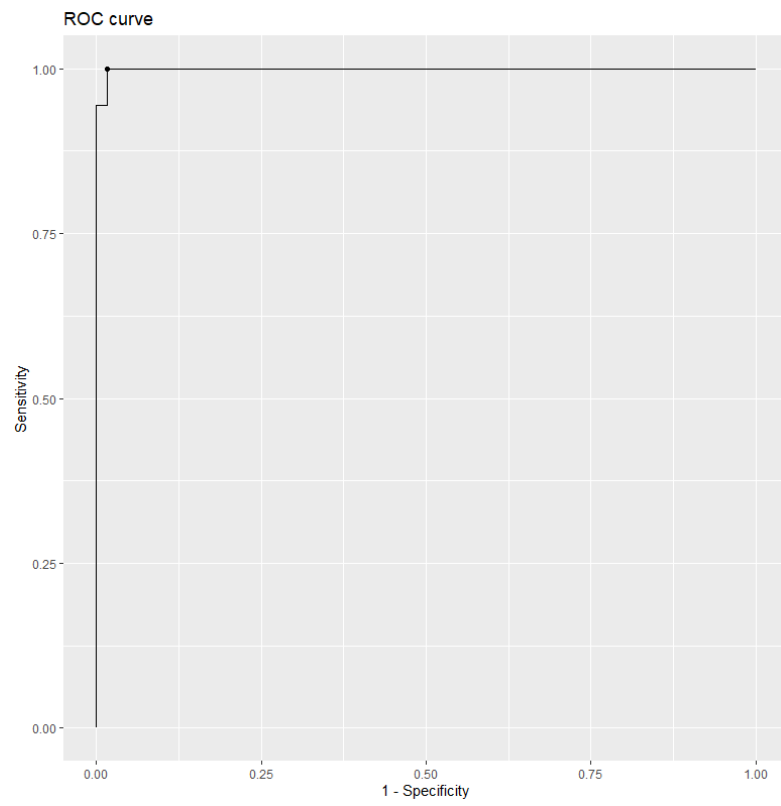
PTX3, pentraxin 3; IPA, Invasive Pulmonary Aspergillosis; CPA, Chronic Pulmonary Aspergillosis (including one patient with SAIA – Sub Acute Invasive Aspergillosis); IPM, Invasive Pulmonary Mucormycosis; Fcol, Fungal Colonization; BInf, pulmonary Bacterial Infections

S1.2. Receiver Operating Characteristic analysis:

Optimal cut-off for invasive fungal disease (in our case aspergillosis and mucormycosis)
= **1653 pg/mL**, giving an area under the curve (AUC) of 0.9795



Optimal cut-off for invasive pulmonary aspergillosis = **2545 pg/mL**, giving an area under the curve (AUC) of 0.9991



Supplementary Data S2: Pentraxin 3, triacetylfusarinin C (TafC) and ferricrocin (Fc) concentrations in bronchoalveolar lavage fluid from invasive pulmonary aspergillosis and invasive pulmonary mucormycosis patients

S2.1. Pentraxin 3, triacetylfusarinin C (TafC) and ferricrocin (Fc) concentrations in bronchoalveolar lavage fluid

IPA Patient no.	Ptx3 (pg/mL)	TafC/Crea (ratio)	Fc/Crea (ratio)
1	4733	ND	58.8
2	5000	72.7	ND
3	2545	370	18.3
4	5000	17.8	ND
5	4932	17.8	ND
6	4909	0.3	ND
7	4220	ND	ND
8	4639	ND	ND
9	4330	172.1	19.7
10	3902	ND	ND
11	4942	ND	ND
12	4547	ND	ND
13	4897	102.6	16.7
14	4880	34.4	ND
15	3496	0.3	ND
16	4588	209.6	36.2
17	4544	ND	ND
18	4116	194.1	ND
IPM Patient no.	Ptx3 (pg/mL)	TafC/Crea (ratio)	Fc/Crea (ratio)
1	1653	ND	ND
2	4352	ND	ND
3	4300	ND	ND
4	4920	ND	ND

S2.2. Diagnostic values of triacetylfusarinin C (TafC) and ferricrocin (Fc)

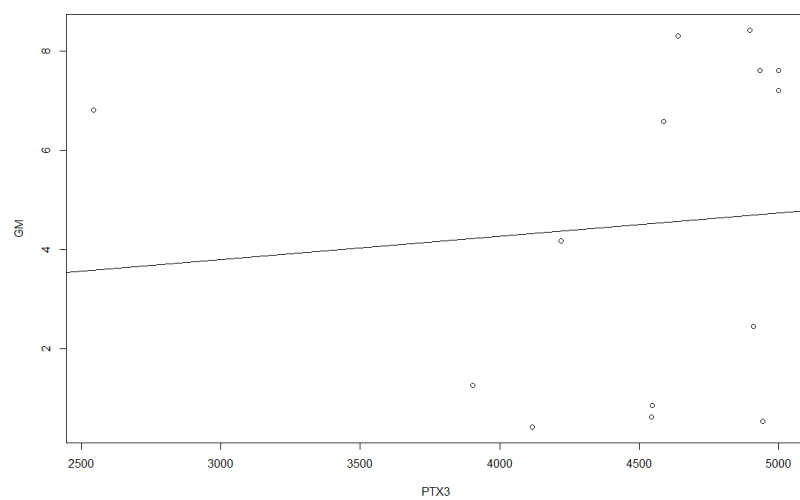
95% CI	TafC/IPM	TafC/IPA	Fc/IPA
Sensitivity (%)	2	61	0
Specificity (%)	100	98	100
PPV (%)	100	92	0
NPV (%)	7	90	22

IPA, Invasive Pulmonary Aspergillosis; IPM, Invasive Pulmonary Mucormycosis; Ptx3, Pentraxin 3; TafC, triacetylfusarinin C; Fc, ferricrocin; Crea, Creatinine; ND, not detected; PPV, Positive Predictive Value; NPV, Negative Predictive Value

Supplementary Data S3: Pentraxin 3 concentrations and galactomannan index values in bronchoalveolar lavage fluid samples from invasive pulmonary aspergillosis patients and analysis of the correlation between the two markers

Patient no.	Ptx3 (pg/mL)	GM (Positivity index)
1	4733	6.5
2	5000	7.20
3	2545	6.80
4	5000	7.60
5	4932	7.60
6	4909	2.44
7	4220	4.17
8	4639	8.30
9	4330	9.40
9	3902	1.26
10	4942	0.53
11	4547	0.85
12	3902	1.26
13	4942	0.53
14	4547	0.85
15	4897	8.41
16	4588	6.58
17	4544	0.61
18	4116	0.42

	Ptx3	GM
Ptx3	1.00000000	0.09411124
GM	0.09411124	1.00000000



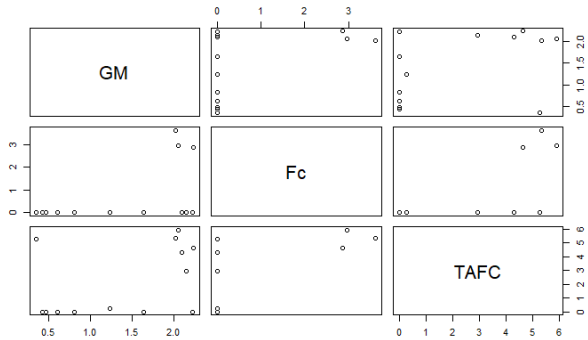
Pearson's correlation between PTX3 and GM in BALF:

Linear association = 0.09411124

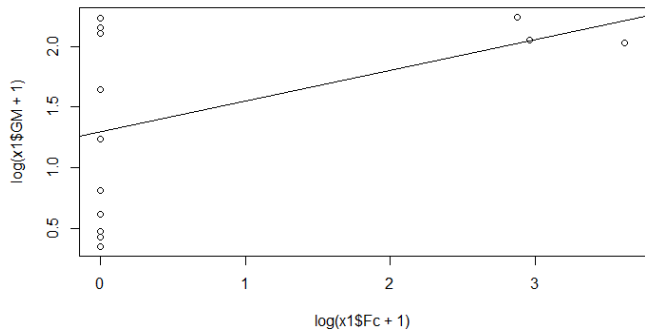
PTX3, pentraxin 3; GM, galactomannan

Supplementary Data S4: Correlation between galactomannan index values and concentrations of ferricrocin and triacetylfusarinine C in invasive pulmonary aspergillosis patients

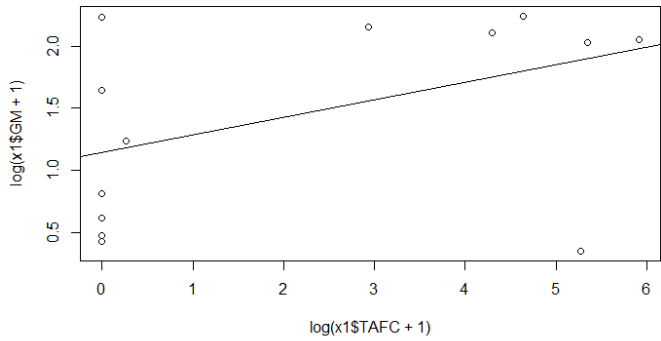
	GM	Fc	TafC
GM	1.0000000	0.4428115	0.4459824
Fc	0.4428115	1.0000000	0.6736457
TafC	0.4459824	0.6736457	1.0000000



Pearson’s correlation analysis for GM and Fc in BALF:
Linear association = 0.4428115



Pearson’s correlation analysis for GM and TafC in BALF:
Linear association = 0.4459824



PTX3, pentraxin 3; GM, galactomannan; Fc, ferricrocin; TafC, triacetylfusarinine C