

Table S1 Clinical timeline of a 32-year-old female with delayed diagnosis of IGM

Timeline	Symptoms	Management	Investigations	Results
4 weeks	Tender breast mass with overlying skin discolouration	Empirical antibiotic therapy for suspected lactational mastitis by general practitioner Flucloxacillin followed by co-amoxiclav	None	None
5 weeks	Fluctuant breast mass	2 weeks wait referral to breast surgeons Co-amoxiclav continued	1st ultrasound guided needle aspiration	MC&S no growth
6 weeks	Worsening symptoms with new ulceration and discharge	Sensitivity-targeted antibiotic therapy started	2nd ultrasound guided needle aspiration	Staphylococcus aureus with sensitivity to clindamycin
12 weeks	New second inflammatory mass with ulceration and sinus formation.	Referral to breast MDT meeting MDT outcome: 1) Ongoing sensitivity targeted antibiotic therapy 2) Cabergoline for termination of lactation	3rd ultrasound guided needle aspiration 1st core biopsy	MC&S grew <i>Acinetobacter ursingii</i> & <i>Enterobacter faecalis</i> with sensitivities Histology showed lobulocentric inflammation, non-caseating granulomas and microabscesses
4 months	No symptomatic improvement	Referral to infectious disease unit	Fresh large bore core biopsy samples for prolonged cultures	No evidence of mycobacterium infection such as tuberculosis or complex non-tuberculous mycobacterial infection
	Diagnosis of IGM made	Antibiotics stopped Glucocorticoid therapy started (30 mg prednisolone)		
5 months	Immediate clinical improvement with reduction in pain, inflammation and discharge. Closure of sinuses	Ongoing glucocorticoid therapy with proton pump inhibitor cover and calcium supplements	–	–
6 months	Steroid side effects of weight gain and gastrointestinal symptoms Relapse of IGM symptoms once steroid dose tapered	Gastroenterology input New regimen started: 1) Short course tapering prednisolone 2) 50 mg azathioprine 3) 100 mg allopurinol	Azathioprine safety checklist performed (see <i>Table 1</i>)	Safe to start azathioprine
12 months later and to present date	Complete quiescence of symptoms No side effects No further flares of IGM Successful second pregnancy	Remains on low dose regimen of azathioprine 50 mg and allopurinol 100 mg	Regular monitoring of: • Full blood count • Liver function tests • 6-Thioguanine nucleotide • Methyl-mercaptopurine	Surveillance once every 4 months with breast surgeons and gastroenterologists

IGM, idiopathic granulomatous mastitis; MC&S, microscopy, culture and sensitivity; MDT, multi-disciplinary team.

Appendix 1 Patient perspective

“It was a long and challenging journey to get to the diagnosis of IGM and since starting the new treatment with

azathioprine and allopurinol the disease has been completely under control. I have been able to take both medications throughout a new pregnancy and while breastfeeding with no harm to the baby. Thank you.”