

Mycophenolate mofetil: a novel treatment for Cryptogenic Organising Pneumonia

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Objectives

- This case describes the use of mycophenolate mofetil (MMF) in a complex patient who had treatment failure whilst on prednisolone who exhausted current best practice therapies.
- One case series (n=3) has been published that supports the successful use of MMF as an alternative to corticosteroids and cyclophosphamide in the treatment of Organising Pneumonia (OP).

Presentation	Relevant Medical History	Relevant Medications
<ul style="list-style-type: none"> 88 year old Caucasian male Malaise Unresolved LRTI symptoms Polyuria & polydipsia High BGL pattern 	<ul style="list-style-type: none"> COPD T2DM Organising Pneumonia 	<ul style="list-style-type: none"> Prednisolone 50mg mane (restarted 10 days prior to admission) Protaphane 20 units mane (recent increase from 14 units)

The role of MMF in suppressing lymphocyte proliferation

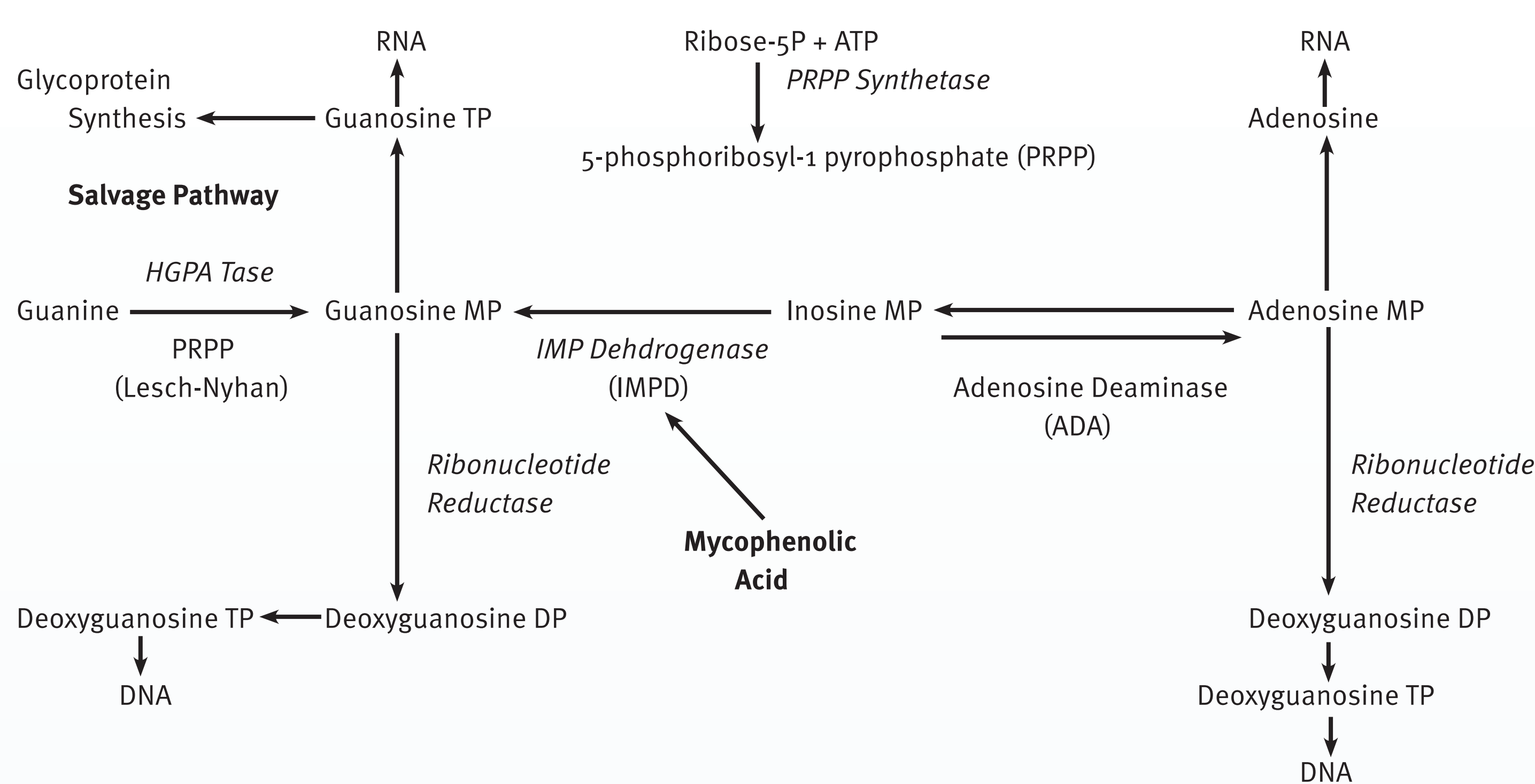


Figure 1. Mechanism of action of MMF in suppressing lymphocyte proliferation. Inhibition of the IMP dehydrogenase prevents the formation of guanosine nucleotides and thus production of lymphocytes.

Pathophysiology:

- Cytokine driven inflammation process
- Increased T1 immune response
- Larger activation of macrophages & lymphocytes

Mycophenolate Mechanism of Action:

- Decreases cytokine driven inflammatory process characteristic of OP
- Suppresses lymphocyte proliferation by depleting guanosine nucleotides

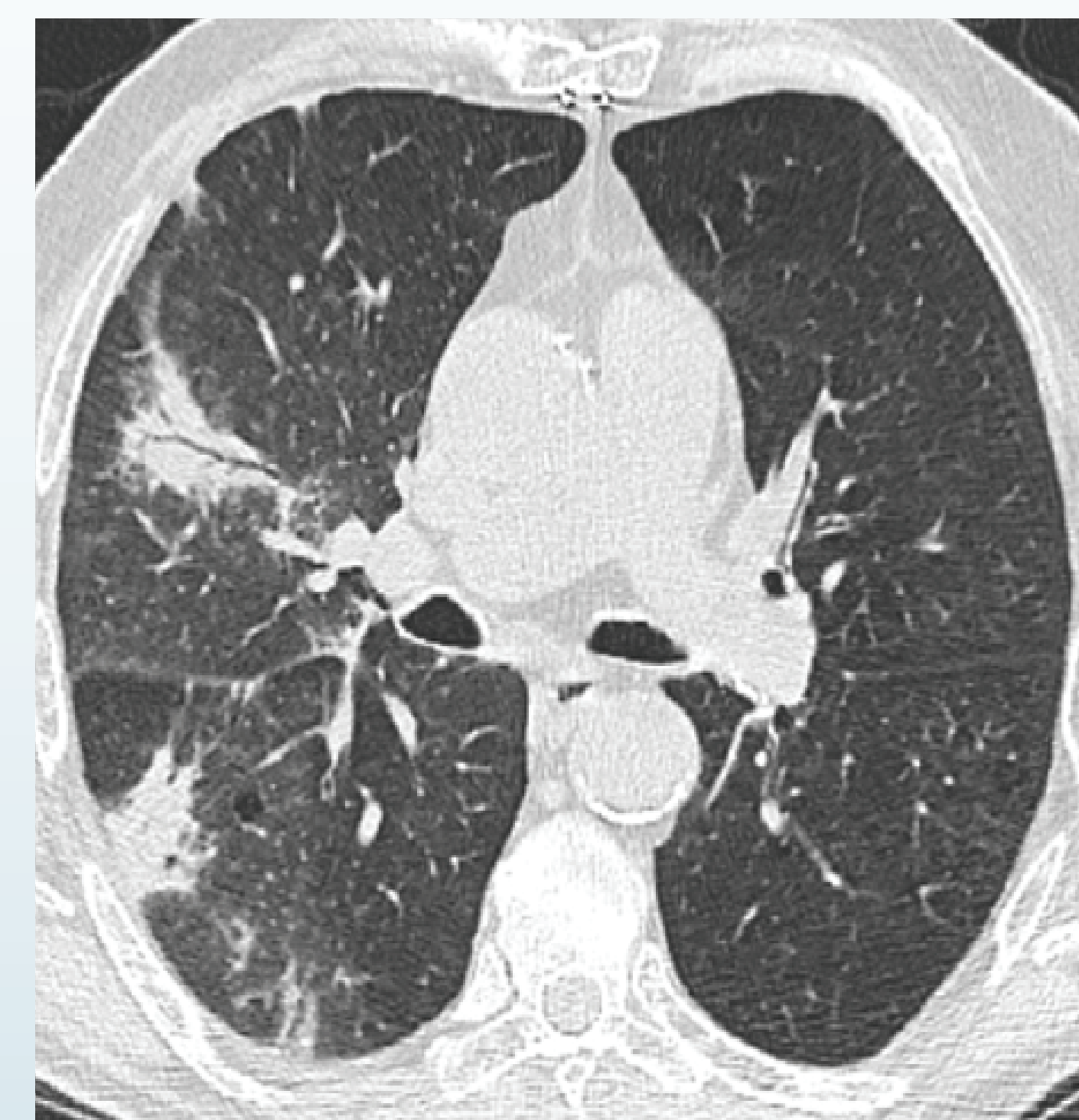
Clinical Features and Diagnostic Tests Conducted to Confirm Diagnosis of OP

- Multiple Chest X-Rays
- CT Chest
- Bronchoscopies and lung biopsy
- Autoimmune screen for rheumatological conditions
- Multiple failed oral antibiotic courses

Common diagnostic findings on a CT chest scan:

- Fluctuating, multifocal consolidation
- Solid and mixed densities
- Bilateral and asymmetrical
- Predominantly lower lobe consolidation

CT Chest of Classic Form COP



Interventions

- Mycophenolate mofetil initiated at 500mg BD (renally reduced) as a steroid-sparing & immunosuppressive agent.
- Discharged on prednisolone 50mg with a downwards tapering dose.
- Changed to a basal-bolus insulin regimen of Lantus & Novorapid.

Patient Progress

- 6 months after discharge: prednisolone weaned to 10mg daily, CXR improvement, increased exercise tolerance, reduced sputum production & chest pain
- 7 months after discharge: insulin ceased
- 1 year after discharge: marked improvement on CXR, stabilised on prednisolone 5mg daily
- FVC – improved from 3L (86%, 5 months after discharge) to 3.45L (99%, 8 months after discharge)

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