



## Early View

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### **Prednisolone plus itraconazole in acute-stage allergic bronchopulmonary aspergillosis complicating asthma**

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## **Prednisolone plus itraconazole in acute-stage allergic bronchopulmonary aspergillosis complicating asthma**

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We thank Havette et al. for the interest shown in our article.[1] They suggest that the benefit of itraconazole-prednisolone combination in allergic bronchopulmonary aspergillosis (ABPA) may be due to the increased bioavailability of inhaled corticosteroids (ICS) resulting from the CYP3A4 inhibition by itraconazole. While theoretically correct, there is no evidence that the interaction with ICS mediates the beneficial effect of itraconazole. Moreover, none of the previous trials of oral triazoles in ABPA have explored this aspect.[2-5] Our recent study suggests that itraconazole is likely beneficial when combined with prednisolone. Whether ICS potentiates this synergy remains to be seen. Havette et al. further indicate that discontinuing itraconazole and oral steroids at four months in the combination arm could have diminished the problem of ICS-itraconazole interaction. We, however, feel that the best study design to investigate the actual effect of prednisolone-itraconazole combination would be to use the combination in ABPA sans asthma where ICS is not used as a routine.[6]

Havette and colleagues bring up the pertinent issue of an accentuated risk of hypothalamic-pituitary-adrenal axis suppression when adding itraconazole to ICS and oral prednisolone.

Unfortunately, in the current study, we did not monitor cortisol levels. We also agree with the concern raised by the authors about azole resistance in *Aspergillus fumigatus* due to prolonged treatment with itraconazole. However, we believe that such resistance is rare when itraconazole is used for shorter courses like in our study. At our center, the prevalence of azole resistance in *A.fumigatus* is low (1/285 isolates, 0.35%; unpublished data). In conclusion, we believe the benefit of prednisolone-itraconazole is likely to outweigh the risk, especially in those with a higher risk of exacerbation (ABPA with fungal ball, extensive bronchiectasis, and others).[7, 8]

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