The paradoxes of asthma management: time for a new approach?

P.M. O’Byrne, C. Jenkins and E.D. Bateman. Eur Respir J 2017; 50: 1701103

Background

- Despite progress in asthma management, national and international surveys continue to reveal an asthma control in only 50% of the patients, in part due to an over-reliance on SABA.
- Several studies confirm that when symptoms worsen, most patients simply increase their use of SABA and are less likely to increase use of their controller medication.
- Hypothesis: This pattern is attributable to several paradoxes in our treatment approach and advice, which are confusing to patients.

5 paradoxes in asthma management

1. In step 1, a SABA alone is recommended despite the fact that asthma is a disease of chronic airway inflammation with increased inflammation at the times of exacerbations.
   ⇒ Patients are taught from the start that treating symptoms alone is acceptable.

2. In step 1, patients are asked to recognise when their condition is becoming troublesome and respond appropriately with SABA use. However, at steps 2 and higher, this approach used at step 1 has to be unlearnt, when physicians attempt to emphasise the key role of a controller that needs to be taken at fixed doses trying to minimize SABA use.
   ⇒ Patients learn in step 1 that symptom relief is best achieved with the SABA, which makes it difficult to reduce it in later asthma stages.

3. In step 2 and higher, the medication that treats the underlying disease (ICS) is not the one that the patient perceives is benefitting them (SABA).

4. There is a different safety message in the advice given for the use of SABA and LABA (SABA alone being safe and LABA alone being unsafe).

5. There is a dislocation between patients’ understanding of “asthma control” and the frequency, impact and severity of their symptoms.

Practical solutions to these paradoxes and the continuum of care approach

- Potential future solution: Replace SABA alone as needed by ICS/formoterol as-needed in patients with intermittent or infrequent symptoms. Increase this to regular maintenance plus as-needed use in patients whose symptoms are persistent. This would accommodate typical patient behaviours and would be acceptable with the self-titration strategies of patients.
Asthma is a heterogeneous disease, so this approach may be considered as oversimplification (ex: how are non-eosinophilic asthma treated in this continuum of care?). The approach is deliberately simple for all the doctors (in primary care in particular) without access to the tools to phenotype/endotype asthma while still providing adequate and acceptable treatment for asthma patients.

Conclusion

If clinical studies support this as an effective and safe strategy, it could ultimately eliminate the use of SABA-only products in asthma.

Reference; P.M. O’Byrne, C. Jenkins and E.D. Bateman. Eur Respir J 2017; 50: 1701103