Strategies for the management of chronic rhinosinusitis with nasal polyps: Expert insight in optimizing care

An expert panel discussion recorded in September 2021
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Expert panel

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Montreal, Quebec, Canada
Agenda

Challenges in the diagnosis of CRSwNP

The management of CRSwNP and the problem of disease recurrence

The implications of recent clinical data for the use of biologics in CRSwNP
Challenges in the diagnosis of CRSwNP

Prof. Claire Hopkins
King’s College London
London, UK
Clinical features of CRSwNP and asthma

CRS, chronic rhinosinusitis; CRSsNP, CRS without nasal polyps; CRSwNP, CRS with nasal polyps.
The comorbidity of CRSwNP and asthma


Clinical trial listed by its identifier at: ClinicalTrials.gov (accessed 17 September 2021).

CRSsNP, chronic rhinosinusitis without nasal polyps; CRSwNP, chronic rhinosinusitis with nasal polyps.


Clinical trial listed by its identifier at: ClinicalTrials.gov (accessed 17 September 2021).
The management of CRSwNP and the problem of disease recurrence

Prof. Claire Hopkins
King’s College London
London, UK
Management of CRSwNP and disease recurrence

Stepwise treatment for CRSwNP

ICS → OCS → Surgery

Disease recurrence

Considerations for biological treatment

- Evidence of type 2 inflammation
- Need for systemic corticosteroids (≥2 courses in the past year)
- Significantly impaired quality of life
- Significant loss of smell
- Comorbid asthma

Dupilumab or omalizumab

20% of patients undergo revision surgery within 5 years

50% of patients show recurrence within 5 years

CRSwNP, chronic rhinosinusitis with nasal polyps; ICS, inhaled corticosteroids; OCS, oral corticosteroids.
Biologics targeting type 2 inflammation in CRSwNP

CRSwNP, chronic rhinosinusitis with nasal polyps; DC, dendritic cell; IgE, immunoglobulin E; IL, interleukin; IL-4Rα, IL-4 receptor alpha; ILC2, type 2 innate lymphoid cell; Th2, T helper 2; TSLP, thymic stromal lymphopoietin.

The implications of recent clinical data for the use of biologics in CRSwNP

Prof. Claire Hopkins
King’s College London
London, UK
Emerging biologics for CRSwNP: Summary of RCT data

<table>
<thead>
<tr>
<th>Biologic</th>
<th>Study Details</th>
<th>Results</th>
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<tbody>
<tr>
<td><strong>Mepolizumab (anti-IL-5)</strong></td>
<td>SYNAPSE (NCT03085797), phase III</td>
<td>NPS improved at week 52: -0.73 (p&lt;0.0001)</td>
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<td>Adult patients; Recurrent, refractory, severe, bilateral nasal polyps</td>
<td>Nasal obstruction (VAS) improved between weeks 49 and 52: -3.14 (p&lt;0.0001)</td>
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<td>N=407</td>
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<td><strong>Benralizumab (anti-IL-5Rα)</strong></td>
<td>OSTRO (NCT03401229), phase III</td>
<td>NPS improved at weeks 40 and 56: (p&lt;0.005 and p&lt;0.05)</td>
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<td>Adult patients; Severe CRSwNP; Symptomatic despite standard of care</td>
<td>Nasal obstruction (VAS) improved between weeks 49 and 52: -3.14 (p&lt;0.0001)</td>
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<td>N=410</td>
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<td><strong>Tezepelumab (anti-TSLP)</strong></td>
<td>OSTRO (NCT04851964), phase IIb</td>
<td>Comparable AAER reduction at 52 weeks</td>
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<td>N=550 adult patients with severe asthma; 15.2% of the study population had nasal polyps</td>
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<td>n=82</td>
<td>Patients with nasal polyps: -75%</td>
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<td>Post hoc analysis of PATHWAY</td>
<td>Patients without nasal polyps: -73%</td>
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AAER, annual asthma exacerbation rate; CRSwNP, chronic rhinosinusitis with nasal polyps; IL, interleukin; IL-5Rα, IL-5 receptor alpha; NPS, nasal polyps score; RCT, randomized controlled trial; TSLP, thymic stromal lymphopoietin; VAS, visual analogue scale.


Clinical trials listed by their identifiers at: ClinicalTrials.gov (accessed 17 September 2021).
Emerging biologics for CRSwNP: Ongoing phase III RCTs

CRSwNP, chronic rhinosinusitis with nasal polyps; ECRS, eosinophilic chronic rhinosinusitis; RCT, randomized controlled trial.

Clinical trials listed by their identifiers at: ClinicalTrials.gov (accessed 17 September 2021).

**Mepolizumab**
- **MERIT** (NCT04607005)
- Adults with CRSwNP or ECRS
- Recruiting (estimated enrolment: 160)
- Start: February 2021
- Estimated completion: February 2023

**Benralizumab**
- **ORCHID** (NCT04157335)
- Adults with ECRS with nasal polyps
- Recruiting (estimated enrolment: 276)
- Start: November 2019
- Estimated completion: June 2024

**Tezepelumab**
- **WAYPOINT** (NCT04851964)
- Adults with CRSwNP
- Recruiting (estimated enrolment: 400)
- Start: April 2021
- Estimated completion: January 2024