In patients with acute radiculopathy due to a herniated lumbar disk, do oral steroids improve pain compared with placebo?

Evidence-Based Answer
No. In patients with acute radiculopathy, oral steroids do not decrease pain or need for surgery compared with placebo (SOR: B, single high-quality RCT and single low-quality RCT).

A double-blind, placebo-controlled RCT including 269 patients with acute lumbar radiculopathy from a herniated disk confirmed by magnetic resonance imaging (MRI) compared the effect on pain of a 15-day course of tapered oral prednisone (60-40-20 mg × 5 days each; n=181) versus matching placebo (n=88). Below-waist pain averaged over the prior 3 days was reported on a 0 to 10 pain scale at 3 and 52 weeks. Below-waist pain did not differ between therapies (mean difference [MD] –0.3; 95% CI, –1.0 to 0.4; and MD –0.6; 95% CI, –1.3 to 0.2, respectively). There were also no differences in the adjusted MD between groups for highest and lowest below-waist pain score (pain at its worst or best over the past 3 days). At the 3-week follow-up, 67% of patients in the prednisone group and 65% in the placebo group showed at least a 2-point improvement in pain score (relative risk [RR]=1.1; 95% CI, 0.9–1.3). No difference was noted between the groups in need for surgery at the 52-week follow-up visit (9.9% vs 9.1%; RR 1.2; 95% CI, 0.5–2.6). At 3 weeks, more transient adverse events were reported in the prednisone group, with 49.2% of patients reporting at least one adverse event compared with 23.9% of patients in the placebo group (P<.001). Adverse events included insomnia, nervousness, increased appetite, indigestion, headache, joint pain, and sweating. No serious adverse events were reported.

A double-blind, placebo-controlled RCT from 2008 included 27 patients (mean age, 42.5 years) who presented within 1 week of developing sciatic symptoms and compared the effect on pain of a tapering 9-day course of oral prednisone (60-40-20 mg × 3 days each) versus matching placebo. The primary outcome was posttreatment pain (on a 0–24 scale) measured weekly for 1 month and then monthly for 5 months. No specific numeric data were provided.

Prednisone significantly decreased pain from baseline at all follow-up visits. Placebo decreased pain from baseline at all visits except weeks 1 and 3. No difference was noted between the placebo and prednisone group pain scores at any of the follow-up visits. Study limitations included different initial pain scores at baseline (3.9 vs 3.1 for prednisone and placebo groups, respectively, estimated from a graph), small sample size, and lack of MRI confirmation of lumbar disc herniation.

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Do children exposed to maternal opioids during gestation have increased risk of long-term deficits compared with children who were not exposed?

Evidence-Based Answer
Exposure to heroin or methadone during gestation is associated with measureable neurobehavioral deficits when the children are 1 to 5 years old (SOR: B, meta-analysis of small cohort studies). In older children (8.5 years), neonatal polysubstance exposure (including heroin) is associated with lower total IQ (SOR: B, single prospective cohort study).

A 2014 systematic review and meta-analysis of 5 prospective cohort studies examined neurobehavioral outcomes in children 1 to 5 years old after maternal opioid use during pregnancy. The study populations were recruited from urban, low socioeconomic communities. Each study recruited a cohort of newborns exposed to either methadone or heroin and a control cohort of newborns not exposed to opiates. Mean birth weight ranged from 2,487 to 3,037 g in opioid-exposed cohorts and from 3,236 to 3,754 g in unexposed cohorts. General cognition, psychomotor, and behavior outcomes were assessed with 7 different
Is dermoscopy helpful in differentiating alopecia areata from other forms of alopecia?

Evidence-Based Answer

The presence of tapering hairs on dermoscopy is the most useful finding to differentiate alopecia areata from other forms of alopecia (100% specificity). The presence of black dots, broken hairs, and trichorrhexis nodosa may also be diagnostically useful (SOR: C, 1 cross-sectional study and 1 case-control study, both at high risk of bias).

A 2011 cross-sectional study (N=144) evaluated the diagnostic accuracy of dermoscopy for differentiating between forms of alopecia.1 A single dermatologist evaluated consecutive patients with alopecia referred to a Turkish dermatology department (61% female; mean age, 37 years). Patients with seborrheic dermatitis, psoriasis, and secondary cicatricial alopecia were excluded. Cases were diagnosed clinically using the light pull test, quantitative analysis of shed hairs, and hair root analysis as needed, with validated instruments, so results were reported as standardized mean differences.

Exposed infants and children demonstrated statistically significant impairments compared with unexposed infants and children (see TABLE). The effect size was large for behavior changes in 3 to 5 year olds and small to moderate for all other outcomes. All of the studies were low to moderate quality and there was no evidence of heterogeneity.

A 2015 prospective cohort study compared cognitive outcomes in Norwegian children exposed to prenatal opioids and other substances (n=72) with unexposed children (n=58) at 1, 2, 3, 4.5, and 8.5 years of age.4 The outcome data from 1 to 4.5 years were included in the 2014 meta-analysis. Most of the children’s mothers used heroin (54%) followed by benzodiazepines and alcohol. Children with fetal alcohol syndrome were excluded. All of the unexposed children, but only 5 of the exposed children, still lived with a biological parent at latest follow-up.

Exposed children were, on average, born 2 weeks earlier, weighed 630 g less, had a 1.5 cm smaller head circumference, and scored 0.4 points lower on a 5-point scale of parental socioeconomic status. The outcome of total IQ was measured with the Wechsler Intelligence Scale for Children. At 8.5 years, both exposed boys and girls had significantly lower IQ scores compared with controls (mean difference 18; 95% CI, 12–24). The differences remained significant after controlling for socioeconomic status, gestational age, and birth weight. Results were similar with subgroup analyses of children who were adopted before 1 year of age and whose mothers used heroin as the main drug of abuse during pregnancy.5

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TABLE

<table>
<thead>
<tr>
<th>Neurobehavioral outcomes of infants and children not exposed versus exposed to opioids in utero</th>
<th>No. of studies</th>
<th>No. of patients</th>
<th>SMD</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants (1–2 years old)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognition</td>
<td>4</td>
<td>566</td>
<td>0.23</td>
<td>0.05–0.41</td>
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<tr>
<td>Psychomotor</td>
<td>4</td>
<td>566</td>
<td>0.43</td>
<td>0.25–0.60</td>
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<tr>
<td>Behavior</td>
<td>3</td>
<td>361</td>
<td>0.44</td>
<td>0.20–0.67</td>
</tr>
<tr>
<td>Children (3–5 years old)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognition</td>
<td>3</td>
<td>405</td>
<td>0.33</td>
<td>0.03–0.63</td>
</tr>
<tr>
<td>Psychomotor</td>
<td>3</td>
<td>405</td>
<td>0.48</td>
<td>0.28–0.68</td>
</tr>
<tr>
<td>Behavior</td>
<td>2</td>
<td>289</td>
<td>1.4</td>
<td>1.1–1.6</td>
</tr>
</tbody>
</table>

SMD = standard mean difference (positive number indicates better outcomes in patients without neonatal opioid exposure).

Note: An SMD of 0.2 is considered small, 0.6 moderate, 1.2 large, and 2.0 very large.

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