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Surgeon Opinions on Use of Epidural Steroids in Treatment of Lumbar Disk Disease: Results of an Online Survey

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Introduction

“Standard of care” can vary along regional and specialty lines; it is common to discover that a local “standard” can be different somewhere else. Opinions may differ between pain management specialists, primary care physicians, and spine surgeons with regard to use of conservative treatment modalities.

Opinion within a given group of practitioners, however, should converge. Local differences between hospitals may exist, but conferences, professional journals, and national boards for certification are mechanisms that should act to maintain homogeneity within a professional group. It could be expected that commonly utilized treatment approaches within a well defined group of sub-specialists should converge.

One of the more common non-surgical options for herniated lumbar spinal discs is epidural steroid injections (ESIs). Patients may be referred to pain management centers for lumbar ESIs by their primary care physician or perhaps after consultation with a surgical specialist. We sought to assess the opinion of practicing spine surgeons with regard to timing and use of lumbar ESIs as a part of a conservative treatment approach to both lumbar disk herniations (HNP) and lumbar degenerative disk disease (DDD).

The definition of “conservative therapy” is unclear, although use of same as a control arm in prospective studies of surgical efficacy is commonplace. We sought to assess whether practicing spine surgeons would agree upon treatment protocols in their approach to treatment of lumbar degenerative disease and lumbar disc herniations. Lack of agreement on use of this tool in conservative management of lumbar disease could imply greater divergence in broader use of conservative treatment modalities.

Methods

An online survey was announced and made available on www.spineuniverse.com, a portal site for information on therapies for spinal conditions. Sixty-one surgeons responded to the survey. Because participants were self-selected, we must be cautious about whether the results can be generalized. The survey questions are presented in Table I. Sixty-one surgeons responded.

There was broad divergence in all responses. The only clear majority was the decision to consider ESIs after 6 weeks of conservative treatment in lumbar HNP (Figure 1). In both HNP and DDD, the number of ESI regimens administered before considering surgical alternatives followed the same pattern: surgeons were likelier to favor smaller numbers of cycles, and going as far as 3 or 4 regimens was unlikely (Figure 2). Otherwise, there was no clear pattern in how ESIs were used (Figures 3, 4 and 5).

Bowker’s test of symmetry was used to assess whether surgeons were likely to use ESIs the same way in HNP and DDD. Statistically significant differences were found in the length of time before ESIs were considered (Figure 1; $p < 0.01$) and the length of time before invasive surgical options were considered (Figure 3; $p < 0.05$). These results suggest that surgeons tend to change treatment options earlier in HNP than in DDD.

Discussion

If the self-selected response sample is biased, we might assume that the bias would tend to homogenize the reported opinions. Conversely, a small population sample may

Table 1.

1. When in the treatment plan do you consider ESIs for patients with a lumbar herniated disc?	a. after 6 weeks of conservative care b. after 6-12 weeks of conservative care c. after 3-6 months of conservative care d. after greater than 6 months of conservative care
2. What is the average number of ESI treatment cycles that patients with lumbar herniated discs normally receive before considering alternate treatments?	a. 1 treatment regimen b. 2 treatment regimens c. 3 treatment regimens d. 4 treatment regimens or more
3. How long are patients with lumbar herniated discs treated with conservative care and ESIs before more invasive treatment options are considered?	a. up to 6 weeks b. 6-12 weeks c. 3-6 months d. Patient directed
4. How frequently do you consider using epidural steroid injections (ESIs) in your treatment of patients with lumbar herniated disc?	a. Frequently (>75% of the time) b. Often (50-75% of the time) c. Sometimes (25-50% of the time) d. Rarely (<25% of the time)
5. How many ESIs are normally considered in a treatment regimen for patients with lumbar herniated discs?	a. 1 injection b. 2 injections c. 3 injections

Survey Responses

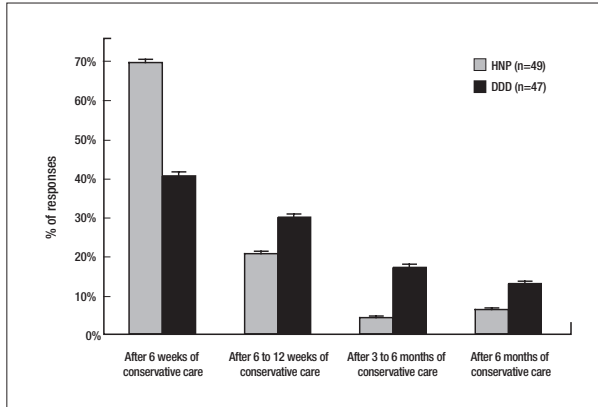


Figure 1

When in the treatment plan do you consider ESIs for patients with a lumbar herniated disc?

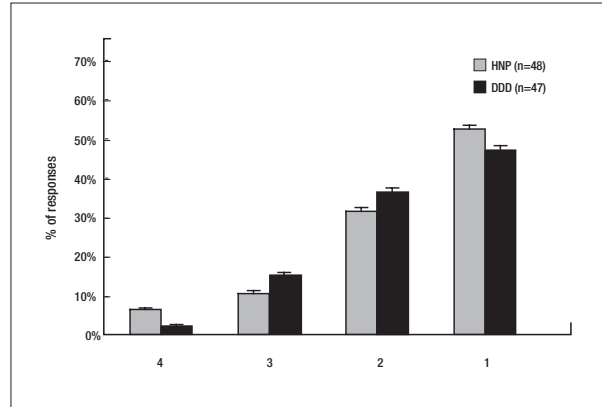


Figure 2

What is the average number of ESI treatment cycles that patients with lumbar herniated discs normally receive before considering alternate treatments?

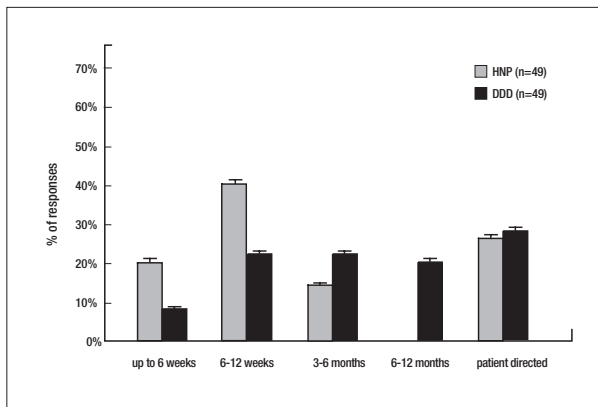


Figure 3

How long are patients with lumbar herniated discs treated with conservative care and ESIs before more invasive treatment options are considered?

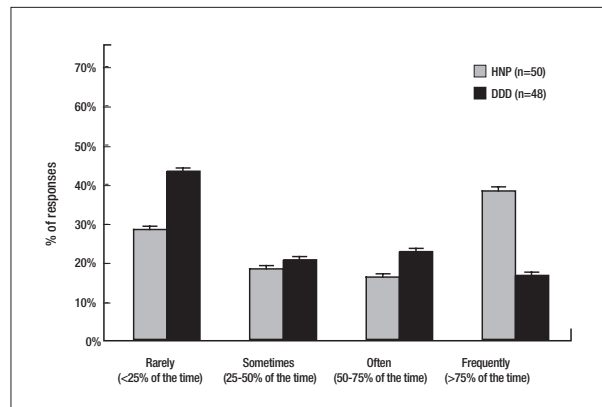


Figure 4

How frequently do you consider using epidural steroid injections (ESIs) in your treatment of patients with lumbar herniated disc?

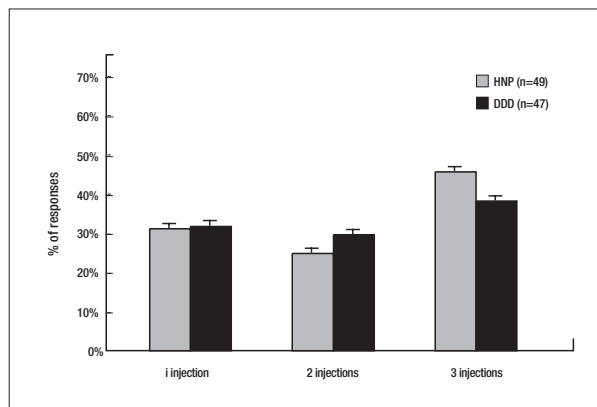


Figure 5

How many ESIs are normally considered in a treatment regimen for patients with lumbar herniated discs?

show more difference from the “true” mean than would a larger sample. With these caveats, we may state based upon our survey that there is no clear consensus on how the role of epidural steroids in treatment of patients with HNP or DDD.

The potential consequence on patient care is obvious. Treatment regimens given to individual patients are effectively randomized

according to which surgeon assesses their case. While there may be no significant difference on outcome between three weeks or six months of ESI treatment, there remains a potential real impact on patient well-being and on medical expenses incurred.

More importantly, this variance may also complicate attempts to study the effectiveness of new interventions. If “conservative” control

treatments vary from surgeon to surgeon, and presumably from location to location, studies using “standard conservative treatment” as their control arm are suspect. It is possible, though untestable, that these variations self-propagate as surgeons base their choices on both published articles and on communication between colleagues.