

## ***A brief summary of the literature concerning the osteopathic management of patients during pregnancy***

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A considerable number of calls have been received recently at the NCOR office concerning the evidence to support the osteopathic management of patients during pregnancy. This article is designed to be a brief overview of predominantly osteopathic research, with references provided for further reading; it is not intended to be an exhaustive account of the literature.

The most significant data connected with osteopathic management of patients during pregnancy can be found from work carried out by Dr Steven Sandler, Director of the Expectant Mothers Clinic at the British School of Osteopathy<sup>1</sup>. A survey of the first 400 cases seen at the clinic revealed a profile of the symptoms and outcomes of treatment experienced by patients up to 1996. One of the most frequently cited symptoms during pregnancy is low back pain; this has been described as occurring in 82%<sup>2</sup> to 50%<sup>3,4</sup> of patients. Low back pain and referred pain to the sciatic distribution during pregnancy remain the most common symptoms reported to osteopaths. The safe and positive effects of treating low back pain at this time have been documented in the literature<sup>5,6,7</sup>.

Anecdotal evidence from practice will inform osteopaths that the symptoms experienced by patients during pregnancy can vary further to include indigestion and gastrointestinal reflux<sup>8</sup>, hypertension<sup>9</sup>, sacro-iliac pain<sup>10</sup> and carpal tunnel syndrome<sup>11</sup>. Taking a careful case history with patients is imperative to allow correct differential diagnosis of symptoms; it is by no means uncommon for patients to experience complications of pregnancy which manifest as musculoskeletal symptoms.

The physiological effects of pregnancy on the musculoskeletal system are well documented<sup>12</sup>; The musculoskeletal system is significantly affected by the action of relaxin, which is extensively described in the literature<sup>13,14</sup>. The onset of gastrointestinal disorders is not uncommon during pregnancy; these can include nausea and vomiting, symptomatic gastroesophageal reflux and the onset of constipation *de novo* or the increase of chronic constipation<sup>15</sup>. Pharmacological options in the form of antacids are considered the first-line drug therapy; histamine2-receptor agonists can be used with persistent symptoms<sup>8</sup>. Many patients are reluctant to use medication during pregnancy: the devastating effects of thalidomide use<sup>16,17</sup> in the late 1950s have still not been forgotten<sup>18</sup>. The use of osteopathic techniques to alleviate symptoms of heartburn is commonly acknowledged anecdotally but little documented evidence exists for this therapeutic approach.

Carpal tunnel syndrome (CTS) is a well documented symptom in pregnancy<sup>11</sup>. Careful differential diagnosis is required since carpal tunnel can also be associated with a variety of other disorders including diabetes and thyroid disease<sup>19,20</sup>. Mid thoracic pain aggravated by changes in the ligamentous tissue and increased weight of breast tissue is also frequently reported in osteopathic practice.

The use of osteopathic manipulative treatment during pregnancy and its effect on the outcome of delivery has been investigated by American osteopaths using a retrospective case control design<sup>21</sup>. A number of different outcomes were reviewed in 160 patients who received osteopathic care and 161 patients who received no osteopathic care; outcomes considered included the occurrence of meconium stained amniotic fluid, pre-term delivery, use of forceps and caesarean delivery. The study found evidence of improved outcomes in both labour and delivery for patients who received prenatal osteopathic care compared with patients who did not.

Work has also been undertaken by osteopaths in the US to look at the effects of posture during delivery<sup>22</sup>; nonsupine positions during labour and delivery were found to have clinical advantages without risk to the mother or infant. Enhanced outcomes included perineal integrity, reduced vulvar oedema and reduced blood loss.

Symptoms frequently persist after delivery and pelvic pain caused by symphysis pubis separation is described in the literature<sup>23</sup>; a scoring system has now been developed to attempt to produce an objective assessment value for this distressing condition<sup>24</sup> which has a variety of approaches to its management strategies<sup>25</sup>.

Significant gaps remain in the literature in this area of osteopathic care. An initiative has been undertaken by the Haywards Heath research group to develop a template to collect data to build up a case series to document information concerning the osteopathic management of patients during pregnancy. It is important for osteopaths to be able to demonstrate a history of treatment in this clinical domain that is both safe and effective.

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