

Author Year; Country Score Research Design Total Sample Size	Methods	Outcome
Rutberg 2008 Sweden Prospective, single-centre study Level 2 N = 16	Population: 16 women with acute SCI (sustained 30 days before s-PRL was sampled). Mean age at injury 44.8 years (range 20-79). SCI in C1-L5, AIS A-D. 7 in menopause, 6 had amenorrhea after SCI (but otherwise normal gynecological history), 3 normal gynecological history, 0 were pregnant or postpartum. Treatment: None Outcome measures: s-PRL test	<ol style="list-style-type: none"> 1. No galactorrhea in participants. 2. Hyperprolactinaemia found in women of childbearing age (n=9) but not in menopause (n=7); hyperprolactinaemia strongly associated with amenorrhea in 6 women of childbearing age within 6 months of injury. 3. No correlation between s-PRL levels and SCI level or degree, so transient increase in PRL attributed to stress response rather than pituitary trauma.
Cowley 2005 Canada Case Series Level 4 N = 3	Population: 3 women with tetraplegia. SCI was sustained 12 years before childbirth for participant 1 and 9 years prior for participant 2. Participant 3 was injured while pregnant with her second child. SCI in C6-8 with AIS A, B. Treatment: None Outcome measures: ability to elicit let-down reflex, ability to breastfeed	<ol style="list-style-type: none"> 1. The 3 women were able to elicit the let-down reflex, and breastfeed even with high-level SCI, using mental imaging or pharmacological treatment. 2. Participant 1 used mental imaging to induce the let-down reflex and breastfeed her twins for 52 weeks and third child for 54 weeks. 3. Participant 2 required oxytocin nasal spray to induce let-down and breastfed for 6 months. 4. Participant 3 breastfed her first child (born before sustaining SCI) for 9 months. She breastfed her second child (born after sustaining SCI) for 3 months.
Craig 1990 USA Case Series Level 4 N = 9	Population: A total of 13 pregnancies across 9 women with SCI (n=8) or paralysis due to polio (n=1). At time of study, women were 27-48 years old (mean 34.66 years). SCI in C4-T12 (AIS unknown). SCI at or above T6 (n=4) or below T6 (n=4). Treatment: None Outcome measures: pregnancy, labour, and postpartum experiences	<ol style="list-style-type: none"> 1. The 4 women with SCI at or above T6 noted a decrease in milk production 6 weeks postpartum. 2. The women with low SCI did not report any lactation difficulties, leading the author to conclude that lactation may be impaired in women with high-level SCI (above T6).
Berezin et al. 1989 Israel Case series Level 4 N = 6	Population: 6 (out of 61) SCI patients with previously normal menstruation who developed transient galactorrhea-amenorrhea syndrome after traumatic dorsal/lumbar SCI. Aged	<ol style="list-style-type: none"> 1. All women had elevated PRL 3-4 weeks post-injury. 2. 4 women received bromocriptine, which normalized PRL, galactorrhea, and menstruation.

	<p>15-50 years. T4, T6, T12, L5. AIS not reported.</p> <p>Treatment: bromocriptine</p> <p>Outcome measures: PRL test, galactorrhea and menstruation presence</p>	<p>3. PRL in untreated patients gradually normalized over 12 months. Cessation of galactorrhea and restoration of menstruation occurred sooner.</p> <p>4. Higher lesions (T4, T6) were associated with longer, more severe galactorrhea-amenorrhea and highest levels of PRL.</p>
<p>Yarkony et al. 1992 USA Case series Level 4 N = 4</p>	<p>Population: 4 women with thoracic paraplegia aged 19-30 years. SCI in T3-T11, AIS A and B. 1 had never been pregnant. 3 had given birth 2-7 years before SCI; 1 became pregnant 34 months after onset. All were previously on medications (dopamine (DA) antagonists, H2-receptor (H2-R) blockers, tricyclic antidepressants (TCAs) or a combination).</p> <p>Treatment: discontinuing metoclopramide and other medications.</p> <p>Outcome measures: Galactorrhea, PRL levels</p>	<p>1. Galactorrhea occurred one to five months after SCI and persisted for 22-34 months (exact duration unknown because some declined treatment and may have been lost to follow-up).</p> <p>2. Discontinuing metoclopramide (DA antagonist) resolved galactorrhea and slightly elevated PRL in a nulliparous woman with slightly elevated PRL.</p> <p>3. Discontinuing all other medications (DA antagonists, H2-R blockers, TCAs) did not alleviate hyperprolactinemia or galactorrhea for two others who declined treatment.</p> <p>4. One woman had normal PRL and galactorrhea which ceased at 22 months without treatment (unknown if related to discontinuing H2-R blockers and TCAs which did not immediately have an effect).</p>
<p>Boyd et al. 1978 USA Case Series Level 4 N = 2</p>	<p>Population: Woman (n=2) who at age 26 received a laminectomy from C2-T3 for thoracic ependymoma. Aged 32 years at time of study. SCI in C2-T4, no AIS reported (but describes sensory deficit and weakness of extremities in this range).</p> <p>Treatment: None</p> <p>Outcome measures: galactorrhea, amenorrhea, PRL levels</p>	<p>1. Amenorrhea occurred from immediately post-operation to 6 months. At age 30, galactorrhea occurred during first pregnancy. Both amenorrhea and galactorrhea were resolved 6 weeks after bromergocryptine was given but recurred 1 month after medication stopped.</p> <p>2. PRL taken over 5 days ranged from normal to slightly elevated (12-42 ng/mL).</p>
<p>Robertson et al. 1972 United Kingdom Case Series Level 4 N = 9</p>	<p>Population: 26 women with paraplegia and tetraplegia who delivered a total of 39 babies. Traumatic paraplegia (n=20). Other causes of paralysis were spinal cord disease (n=4) and poliomyelitis (n=2). C4-5 was highest level of traumatic tetraplegia; T3 reported in the only woman who was injured during pregnancy.</p> <p>Treatment: None</p>	<p>1. All women were able to breastfeed their infants and experienced the let-down reflex.</p>

	Outcome measures: let down reflex, breastfeeding ability	
Tarnacka et al. 2018 Poland Case Study Level 5 N = 1	Population: One 30-year-old SCI woman with SCI at C5 (fracture due to a motor vehicle accident) is described. 4 years after her SCI, she got pregnant. Beyond acute clinical problems related to SCI, many chronic medical issues arose, such as orthostatic hypertension and constipation during her pregnancy. Treatment: None Outcome measures: self-reported problems with childcare	<ol style="list-style-type: none"> 1. Because of right limb paresis, she had difficulty with breastfeeding, could not carry her baby, had problems with lifting her child, had difficulties dressing and bathing and had to hire a babysitter. 2. Later, she encountered difficulties with meal preparation and watching the baby. The problem with baby care was also increased by episodes of AD she had in the past after the injury, and she had the fear of falling down.
Kochar et al. 2015 USA Case Study Level 5 N = 1	Population: 36-year old woman presented to Endocrine clinic for evaluation of galactorrhea. Treatment: None Outcome measures: galactorrhea	<ol style="list-style-type: none"> 1. Although human prolactin (HPrl) following SCI often resolves after 3-6 months, the participant continued with galactorrhea for 3 years post injury. 2. Occasional muscle spasms were well controlled with tizanidine. No other medications were taken. She does not smoke, use illicit drugs, or drink alcohol.
Liu & Krassioukov 2013 Canada Case Report Level 5 N = 1	Population: 1 woman aged 33 years with Brown-Séquard-plus Syndrome, impaired motor function on the right side. SCI was in C4, AIS D. Treatment: None Outcome measures: lactation rate	<ol style="list-style-type: none"> 1. Significant lack of lactation from right breast during first month postpartum. 2. After following pediatrician's advise to pump, breast milk from the right breast remained 83% less than the left breast and she eventually switched to formula feeding.
Dakhil-Jerew et al. 2008 UK Case Report Level 5 N = 1	Population: 1 woman aged 33 with incomplete tetraplegia presented with signs and symptoms of AD attributed to breastfeeding. SCI in C6, AIS C. Treatment: None Outcome measures: AD	<ol style="list-style-type: none"> 1. Cessation of breastfeeding was effective in stopping AD.
Faubion & Nader 1997 USA Case Report Level 5 N = 1	Population: 1 woman aged 39 who underwent surgery for syringomyelia several weeks before galactorrhea onset. SCI: surgical field from C7-T4 (dural incision at T4), AIS unreported. Treatment: bromocriptine Outcome measures: galactorrhea, PRL levels	<ol style="list-style-type: none"> 1. High PRL values (52 ng/mL compared to the normal value of <25 ng/mL) and galactorrhea. Both normalized after bromocriptine treatment.
Patel et al. 2015 USA Case Report (Conference Abstract) Level 5 N = 1	Population: 1 woman aged 32 years who presented to the hospital with traumatic SCI. SCI in T12, AIS B. Treatment: Discontinuation of fluoxetine and introduction of bromocriptine Outcome measures: galactorrhea	<ol style="list-style-type: none"> 1. During her admission, the patient started to have spontaneous galactorrhea from both nipples. Upon further questioning, she reported that for the past 16 years she experienced mild, intermittent serous discharge only when

		<p>expressed. However, now the consistency and color had changed and milk expression was spontaneous. In addition, the patient complained of breast tenderness and engorgement.</p> <ol style="list-style-type: none">2. In the inpatient rehabilitation unit, she was noted to have anxiety, sequelae of an upper motor neuron lesion in the lower extremities, and depression (received fluoxetine).3. Patient reported anxiety at levels that would have disrupt her undergoing magnetic resonance imaging (MRI). Her symptoms persisted after discontinuing fluoxetine and pharmaceutical review of her medications.4. Bromocriptine ameliorated her symptoms. The patient did not follow up with Endocrinology or in SCI clinic after discharge.5. The patient was contacted by phone at a later date and noted that her galactorrhea resolved six months post injury.
--	--	--