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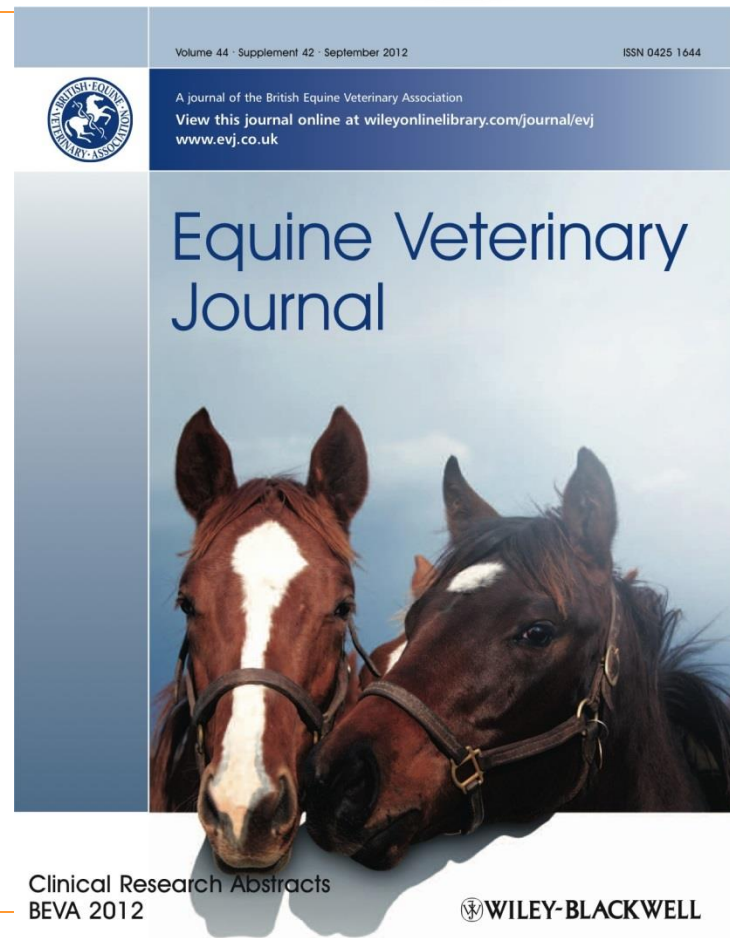
# HBLB research leads the field in Equine Veterinary Journal

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# EVJ and the HBLB



- A research study funded by the Horserace Betting Levy Board (HBLB) has had the highest number of downloads from Equine Veterinary Journal (EVJ) for 2012.
- This scientific journal is the world leader for equine veterinary sciences and overall around 10% of the research studies it publishes are funded by the HBLB.
- This shows the consistent contribution HBLB makes towards science that will improve the health and well-being of the thoroughbred.





## Implantation of bone marrow-derived mesenchymal stem cells demonstrates improved outcome in horses with overstrain injury of the superficial digital flexor tendon

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{Corrections added after online publication 4 November 2011}

### Summary

**Reasons for performing study:** Mesenchymal stem (progenitor; stromal) cell (MSC) therapy has gained popularity for the treatment of equine tendon injuries but without reports of long-term follow-up.

**Objectives:** To evaluate the safety and reinjury rate of racehorses after intralesional MSC injection in a large study of naturally occurring superficial digital flexor tendinopathy and to compare these data with those published for other treatments.

**Methods:** Safety was assessed clinically, ultrasonographically, scintigraphically and histologically in a cohort of treated cases: 141 client-owned treated racehorses followed-up for a minimum of 2 years after return to full work. Reinjury percentages were compared to 2 published studies of other treatments with similar selection criteria and follow-up. The number of race starts, discipline, age, number of MSCs injected and interval between injury and treatment were analysed.

**Results:** There were no adverse effects of the treatment with no aberrant tissue on histological examination. The reinjury percentage of all racehorses with follow-up ( $n = 113$ ) undergoing MSC treatment was 27.4%, with the rate for flat ( $n = 8$ ) and National Hunt ( $n = 105$ ) racehorses being 50 and 25.7%, respectively. This was significantly less than published for National Hunt racehorses treated in other ways. No relationship between outcome and age, discipline, number of MSCs injected or injury to implantation interval was found.

**Conclusions:** Whilst recognising the limitations of historical controls, this study has shown that MPC implantation is safe and appears to reduce the reinjury rate after superficial digital flexor tendinopathy, especially in National Hunt racehorses.

**Potential relevance:** This study has provided evidence for the long-term efficacy of MSC treatment for tendinopathy in racehorses and provides support for translation to human tendon injuries.

**Keywords:** horse; mesenchymal; stem; progenitor; tendinopathy; superficial digital flexor tendon

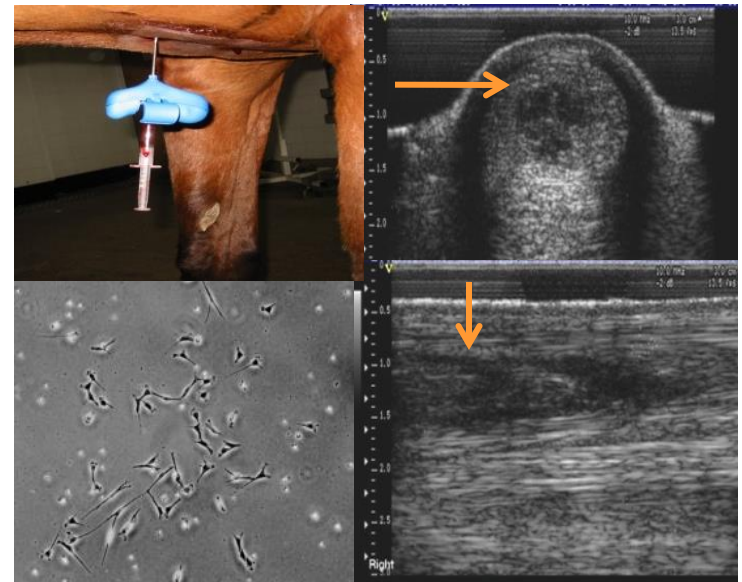
EVJ's most  
downloaded article  
in 2012 described  
work by Dr Godwin  
on outcomes  
following stem cell  
treatment in horses  
with tendon injuries

[To read the full article click here](#)



# Findings

- There were no adverse effects of the treatment and the re-injury percentage for National Hunt (NH) racehorses was 25.7% which was significantly less than published for NH racehorses treated in other ways
- Dr Godwin concluded that the stem cell therapy is safe and appears to reduce the re-injury rate after superficial digital flexor tendinopathy, especially in NH racehorses



[To read the full article click here](#)

# Stem cell tendon treatment study

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- For more information and to read full details of the study go to
  - <http://onlinelibrary.wiley.com/doi/10.1111/j.2042-3306.2011.00363.x/full>
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# EVJ Top 10

- Three other HBLB-related articles appeared in EVJ's top 10
- Professor Peter Clegg's state-of-the-art reviews of Fractures and Fatalities, and Tendon and Ligament Injuries occupying positions 3 and 4;
- Celia Marr's synopsis of the HBLB's contribution to veterinary sciences over the last 50 years coming in at No. 6



Figures: a & b are both condylar fractures of the cannon bone, the most common fractures in racehorses (provided by Prof. P Clegg)

# The HBLB review articles

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- Both Professor Peter Clegg and Celia Marr's articles can be found at:
  - [http://onlinelibrary.wiley.com/journal/10.1001/%28ISSN%292042-3306/homepage/hblb\\_virtual\\_issue.htm](http://onlinelibrary.wiley.com/journal/10.1001/%28ISSN%292042-3306/homepage/hblb_virtual_issue.htm)
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