

Báo cáo ca lâm sàng

Vẹo cột sống vô căn thiếu niên: khi nào cần nẹp chỉnh hình

Hồ Quang Hưng

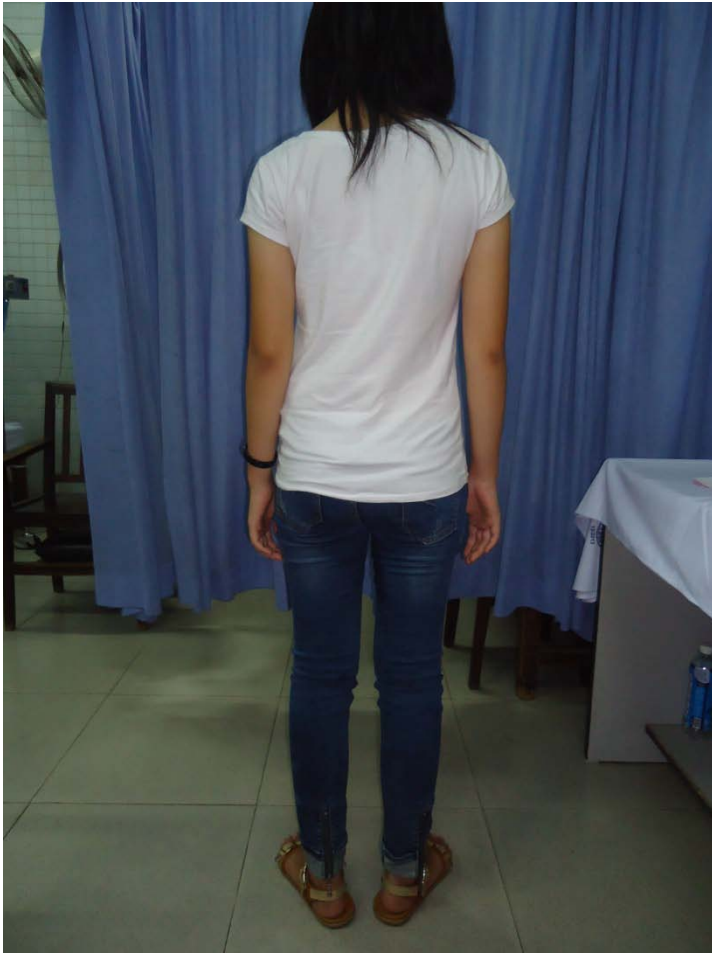
12/9/2014

Giao ban sáng – Khoa PHCN BV Chợ Rẫy

Giới thiệu

- Nữ, 1999, nữ, Quảng Ngãi, Q2
- Mới thi tốt nghiệp lớp 9
- Có kinh nguyệt năm lớp năm
- BN phát hiện vẹo CS khoảng 3 năm nay. 2 năm trước có đau cột sống ngực thoáng qua 1 tuần.
- Nay vào thành phố gặp PGS Mẫn kiểm tra, chuyển VLTL, BS Hưng chuyển BV CH-PHCN, khám nói nhẹ, chỉ cần bơi tập thể dục
- Khám (BS Hưng - 21/7/2013): vẹo cấu trúc, CS ngực di động kém
- Xq: góc Cobb N4-N11: 30 độ, độ xoay N7 45 độ
- HD tập VĐ (CN VLTL)
- Khám PGS Thành: nói nhẹ, chỉ cần theo dõi, tập bơi, tập thở

Khám lâm sàng



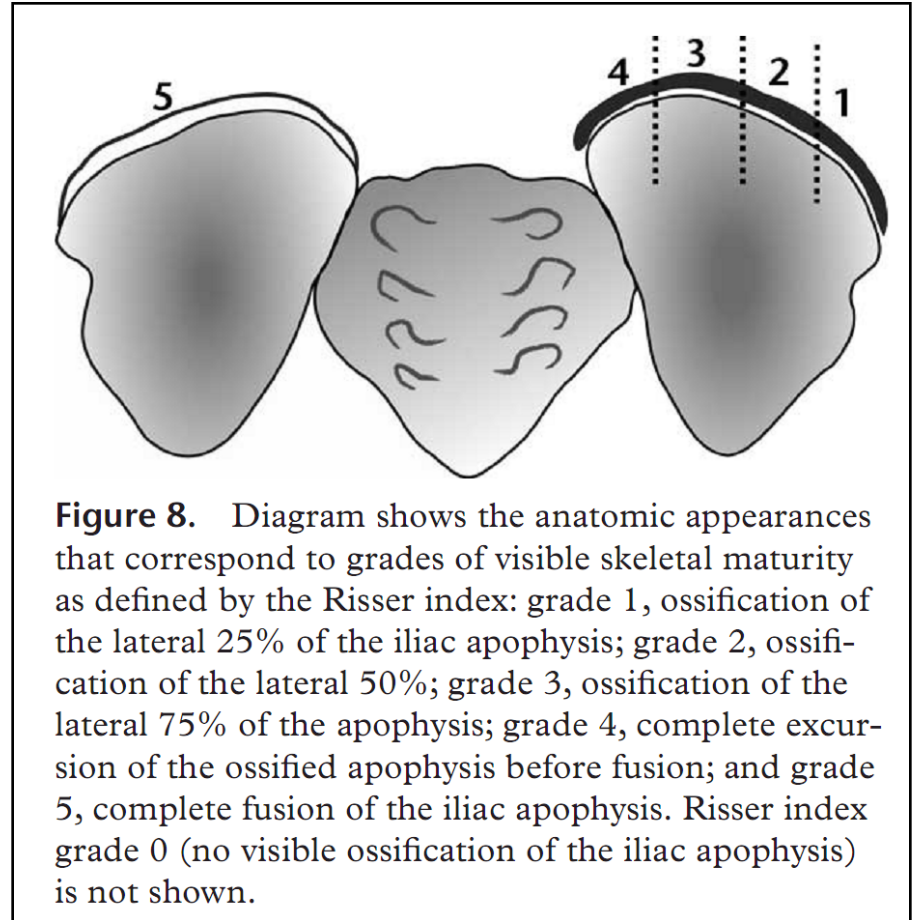
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Chỉ số Risser (1958)

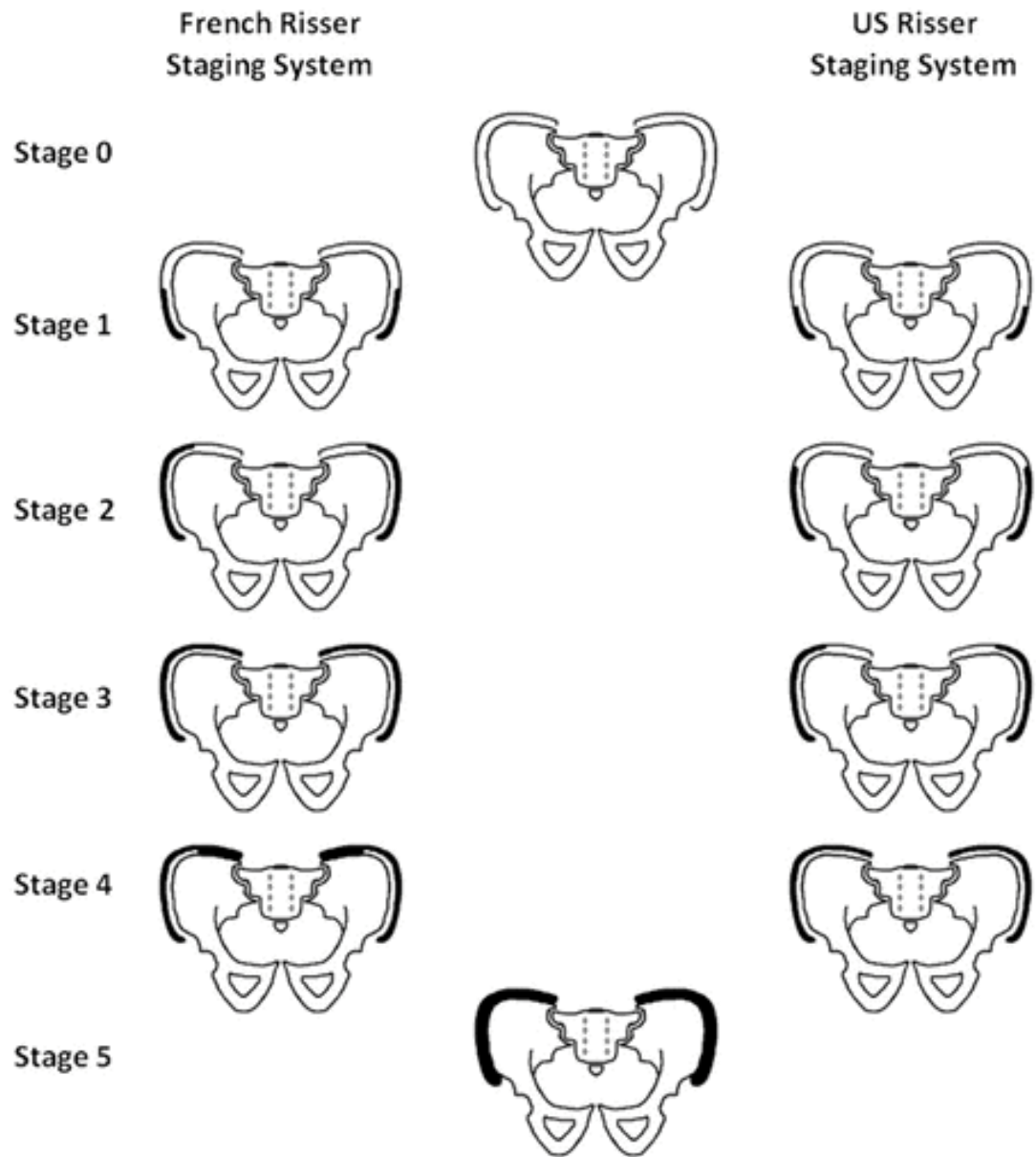
Những thông số thường kết hợp với sự tiến triển vẹo cột sống:

- Tốc độ lớn: trên 2 cm/năm
- Tuổi giầy tờ: 9-13 T
- Tuổi xương: 9-14 T
- Độ cốt hóa mào chậu Risser: 0-1
- Và ở nữ: trước tuổi có kinh nguyệt. Phát triển đột phá thường từ 0.5 đến 2 năm trước khi có kinh. Sau khi có kinh: khả năng tiến triển thấp



Kim H et al. (2010). Scoliosis Imaging: what radiologist should know?.
Radiographics 30(7):1825-1843

Fig. 1 The French and US Risser staging systems have six stages. Stage 0 in the US and French systems is defined as no ossification of the apophysis. In the French system, ossification of the iliac wing is divided into thirds and represents Stages 1, 2, and 3. Stage 4 defines the period when the apophysis commences fusion to the iliac wing posteriorly, whereas Stage 5 is when fusion of the apophysis to the iliac wing is complete. Ossification of the apophysis in the US system is divided into quarters, defining the first four stages (1, 2, 3, 4). Risser Stage 5 describes the period when the ossified apophysis fuses to the iliac wing.



Hiệu quả của mang nẹp ở thiếu niên có VCS vô căn

- Nghiên cứu RCT
- So sánh nhóm mang nẹp và nhóm theo dõi
- Điều trị thất bại nếu vẹo tiến triển đến 50 độ, thành công nếu xương trưởng thành trước khi vẹo 50 độ
- Nghiên cứu phải dừng sớm vì tính ưu thế nổi trội của nhóm mang nẹp

ORIGINAL ARTICLE

Effects of Bracing in Adolescents with Idiopathic Scoliosis

Stuart L. Weinstein, M.D., Lori A. Dolan, Ph.D., James G. Wright, M.D., M.P.H., and Matthew B. Dobbs, M.D.

ABSTRACT

BACKGROUND

The role of bracing in patients with adolescent idiopathic scoliosis who are at risk for curve progression and eventual surgery is controversial.

METHODS

We conducted a multicenter study that included patients with typical indications for bracing due to their age, skeletal immaturity, and degree of scoliosis. Both a randomized cohort and a preference cohort were enrolled. Of 242 patients included in the analysis, 116 were randomly assigned to bracing or observation, and 126 chose between bracing and observation. Patients in the bracing group were instructed to wear the brace at least 18 hours per day. The primary outcomes were curve progression to 50 degrees or more (treatment failure) and skeletal maturity without this degree of curve progression (treatment success).

RESULTS

The trial was stopped early owing to the efficacy of bracing. In an analysis that included both the randomized and preference cohorts, the rate of treatment success was 72% after bracing, as compared with 48% after observation (propensity-score-adjusted odds ratio for treatment success, 1.93; 95% confidence interval [CI], 1.08 to 3.46). In the intention-to-treat analysis, the rate of treatment success was 75% among patients randomly assigned to bracing, as compared with 42% among those randomly assigned to observation (odds ratio, 4.11; 95% CI, 1.85 to 9.16). There was a significant positive association between hours of brace wear and rate of treatment success ($P < 0.001$).

CONCLUSIONS

Bracing significantly decreased the progression of high-risk curves to the threshold for surgery in patients with adolescent idiopathic scoliosis. The benefit increased with longer hours of brace wear. (Funded by the National Institute of Arthritis and Musculoskeletal and Skin Diseases and others; BRAIST ClinicalTrials.gov number, NCT00448448.)

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- Mang nẹp càng nhiều càng tốt

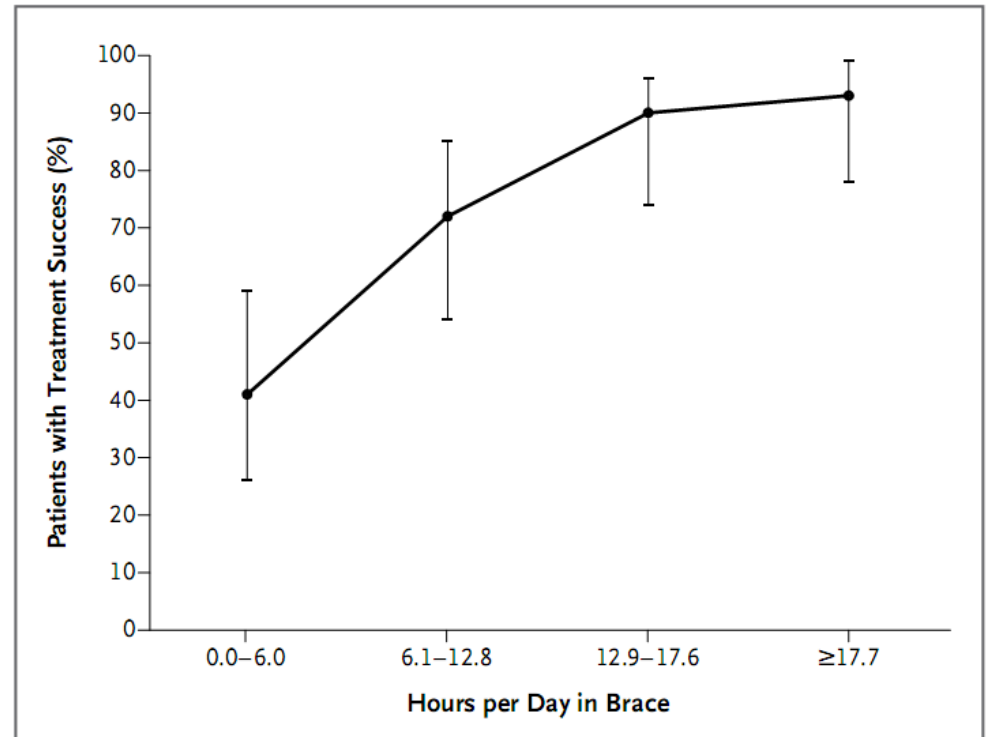


Figure 2. Rate of Treatment Success According to Average Hours of Daily Brace Wear.

During the first 6 months, patients wore the brace for a mean (\pm SD) of 12.1 ± 6.6 hours per day (range, 0 to 23.0). Duration of brace wear was positively associated with the rate of success ($P < 0.001$ by the chi-square test). The lowest quartile of wear (mean hours per day, 0 to 6.0) was associated with a success rate of 42%, whereas brace wear for an average of at least 12.9 hours per day was associated with success rates of 90 to 93%. I bars indicate 95% confidence intervals.

Weinstein SL et al (2013). Effects of Bracing in Adolescents with Idiopathic Scoliosis. *The New England Journal of Medicine* 369:1512-21

- Tiêu chuẩn chọn bệnh (mang nẹp):
 - Tuổi 10-15
 - Độ trưởng thành xương theo Risser là 0,1,2
 - Góc Cobb lớn nhất là 20-40 độ

Bệnh nhân này cần mang nẹp không?

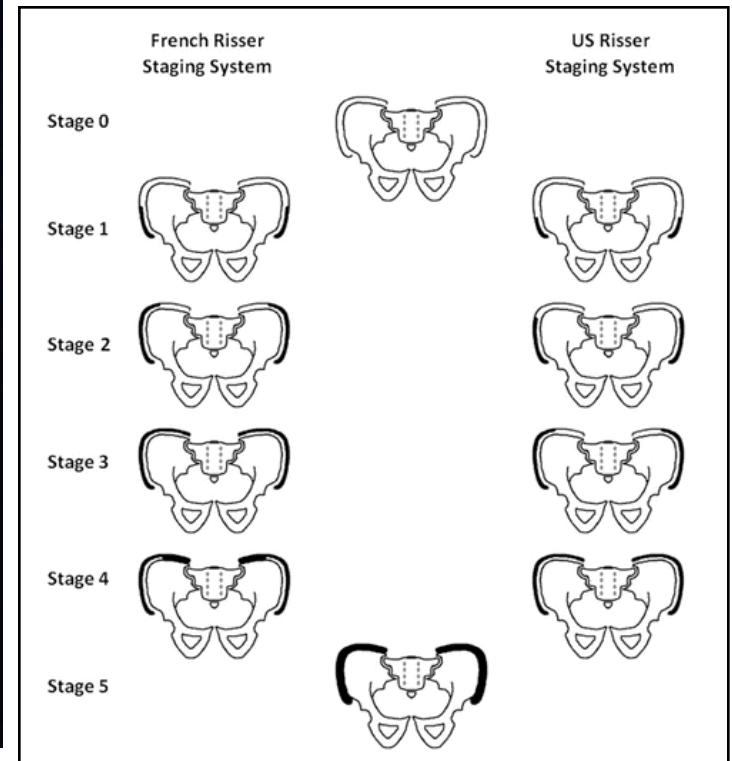
Nữ

15 tuổi

Có kinh lúc 10 tuổi

Góc Cobb là 30 độ

Risser 4-5



Thời gian theo dõi phụ thuộc

- Tái khám mỗi 4-12 tháng
- Sau khi ngừng lớn, chỉ những đường cong lớn hơn 30 độ mới cần theo dõi tiếp, thường mỗi 5 năm

The optimal follow-up interval is based on the individual case, with consideration given to the probability of progression and the likely effect of progression on the treatment plan (2). It is generally recommended that patients with idiopathic scoliosis be monitored every 4–12 months, depending on their age and growth rate (Fig 9). After the cessation of spinal growth, only curves with a Cobb angle greater than 30° should be monitored for progression. Follow-up imaging usually is performed every 5 years, although the follow-up interval depends on the patient's symptoms and the severity of the curvature (28).

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KẾT LUẬN:

- Chỉ định mang nẹp quá rộng tạo ra sự điều trị không cần thiết cho nhiều bệnh nhân
- Do vậy cần xác định những bệnh nhân có nguy cơ cao tiến triển vẹo đáng kể trên lâm sàng mà có thể hưởng lợi từ việc mang nẹp

actually wearing the brace. As others have suggested,^{12,35} current bracing indications may be too broad, resulting in unnecessary treatment for many patients. It is important to identify patients at high risk for clinically significant curve progression who are also most likely to benefit from bracing.

In conclusion, bracing significantly decreased the progression of high-risk curves to the threshold for surgery in patients with adolescent idiopathic scoliosis. Longer hours of brace wear were associated with greater benefit.