



Return to Duty Following Periacetabular Osteotomy



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The authors have no relevant financial conflicts of interest

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Symptomatic Acetabular Dysplasia

- Risk factor for osteoarthritis^{1,2}
- Periacetabular osteotomy (PAO)³
- Literature focuses on time to arthroplasty
- Short- and medium-term results are being assessed^{4,5}



Figure 1: Initial AP pelvis radiograph of a 40yo F with R hip pain and LCEA of 0-deg.

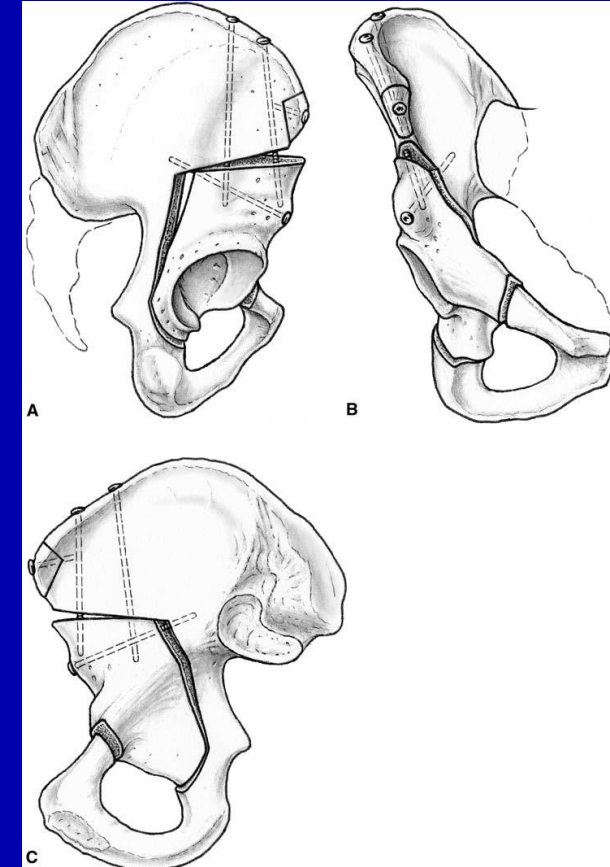


Figure 2: The Bernese PAO⁶

¹ Beck et al. JBJS Br, 2005; 87:1012-8

² Ganz et al. CORR, 2003; 417:112-20.

³ Ganz et al. CORR, 1988; 232:26-36.

⁴ Bogunovic et al. AJSM, 2015; 42:1791-5.

⁵ Clohisy et al. JBJS 2017; 99:33-41.

⁶ Steppacher et al. CORR 2008; 466:1633-44.



Methods

- Retrospective review
 - Tertiary-care, academic military medical center
 - Single surgeon
 - Three year period (2014-2016)
- 18 active duty service members
 - Minimum 18 month follow-up
 - Pre- and post-operative duty restrictions
 - Pre- and post-operative radiographic evaluation
 - Medical board history and VA Disability Rating

	n
Male	4
Female	14
Age	25.6
BMI	25.2
Army	11
Air Force	7
Junior Enlisted (<E5)	11
Senior Enlisted or Officer	7
Combat Arms	2
Combat Support	16
Pre-operative Temporary Duty Restriction*	12 (85.7%)
Pre-operative Permanent Duty Restriction*	1 (7.1%)
Prior Hip Arthroscopy	3 (16.7%)
Age at Service Entry	21.2y (range 18-30)
Years of Military Service at PAO	4.7y (range 1.1 - 16.4)

*Preoperative duty restriction data available on 14 of 18 patients

Results

Table 2: Pre- and Post-operative Radiographic Parameters

Pre-Operative (SD)		Post-Operative (SD)		Change
LCEA	14.8° (10.0)	LCEA	29.6° (12.1)	14.8°
ACEA	20.0° (9.5)	ACEA	38.2° (13.8)	18.2°
AI	14.0° (8.4)	AI	2.4° (10.1)	11.6°

Table 3: Military status at time of most recent follow-up

Average follow-up (years)	2.5y (range 1.5-4.3)
Remained on Active Duty	11 (61.1%)
Full Return to Duty	5 (27.8%)
Temporary Duty Restrictions (TDR)	1 (11.1%)
Permanent Duty Restrictions (PDR)	5 (27.8%)
Non-medical Separation	3 (16.7%)
Medical Separation for Non-Hip Condition	2 (11.1%)
Medical Separation for Primary Hip Condition	2 (11.1%)
Average VA Disability Rating for Hip	16% (range 0-40%)

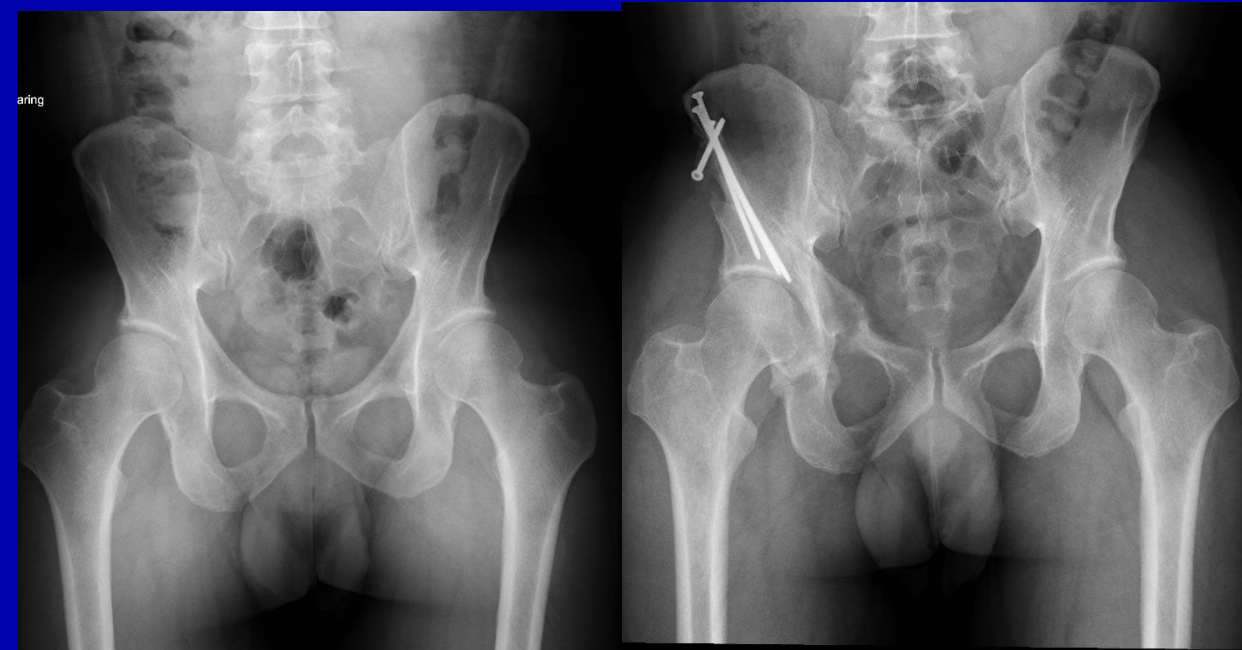


Figure 3 & 4: Pre- and post-operative AP pelvis radiographs of a 35M with right hip dysplasia treated with PAO



Conclusions

- Symptomatic acetabular dysplasia impairs readiness
 - 85.7% (n = 12) with pre-PAO temporary restrictions
 - 7.1% (n = 1) with pre-PAO permanent restrictions
 - 1 with pre-PAO MEB referral
- PAO may provide a option for return to duty
 - 82.3% remain on active duty or completed service commitment
 - 27.8% (n=5) on unrestricted duty or were prior to separation
 - 45.5% (n = 5) remain on active duty with permanent fitness testing restrictions
- Limitations
 - Retrospective nature
 - Single center
 - No patient reported outcomes
 - Return-to-duty



Figure 5: Brooke Army Medical Center (BAMC) and surrounding medical campus.