50 Years Ago in CORR

Suppurative Arthritis of the Hip Joint in Infants

Benjamin E. Oblatz, MD CORR 1962;22:17–33

Prior to early detection of infections, widespread use of antibiotics, and vaccinations against *Haemophilus influenzae* in industrialized countries, hematogenously spread suppurative arthritis of the hip in infants was common. It remains a common and frequently devastating complication in the developing world, particularly if it is diagnosed late [2, 3]. In 1962, Oblatz commented in a CORR article, “Despite widespread use of antibiotics, this disease is seen all too frequently, and usually it results in severe and permanent crippling” [4]. He reported 26 patients, whom were followed 3 to 15 years (one patient was lost to

Table 1

Patient		Sex	Age of Onset	Blood Culture	Hip Culture	Bone Involved	Follow-up	Results
1.	D.B.	M	Premature	Staph.	Staph.	Femur	5 yrs.	Head and neck disappeared. Attempted fusion unsuccessful
2.	M.S.	F	Premature	Staph.	Staph.	Ilium	6 yrs.	Head and neck disappeared.
3.	P.K.B.	M	Premature	Sterile	B. pyocyaneus	Femur	6 yrs.	Head disappeared. Neck in acetabulum
4.	M.H.	F	Premature	Staph.	Staph.	Femur	1½ yrs.	Head and neck disappeared.
5.	K.K.	M	Premature	Staph.	Staph.	Femur	4 yrs.	Coxa vara
6.	D.C.	F	Premature	Staph.	Staph.	Femur	2 mos.	Died of aspiration stomach contents. Fate of head?
7.	T.L.	M	Premature	Staph.	Staph.	Femur	5 yrs.	Head disappeared. Neck in acetabulum
8.	S.K.	F	Premature	Not made	Staph.	Femur	2 yrs.	Head disappeared. Neck intact but dislocated.
9.	E.D.	M	Neonatal	Staph.	Staph.	Ilium	5 yrs.	Head disappeared. Neck dislocated.
10.	R.F.	F	Neonatal	Sterile	Staph.	Femur	15 yrs.	Head and neck intact
11.	D.P.	F	Neonatal	Sterile	Staph. & Strep.	Ilium	4 yrs.	Coxa magna. Mild subluxation of hip
12.	S.R.	F	Neonatal	Staph.	Staph.	Femur	13 yrs.	Coxa valga
13.	C.W.	F	Neonatal	Staph.	Staph.	Ilium	3 yrs.	Head disappeared. Neck in acetabulum
14.	D.H.	F	Neonatal	Staph.	Bacillus coli	Femur	10 yrs.	Coxa magna
15.	R.M.	M	Neonatal	Not made	Staph.	Femurs	9 yrs.	Bilateral. Both heads and necks disappeared.
16.	J.Z.	M	Neonatal	Staph.	Staph.	Femur	—	No follow-up
17.	N.R.	F	Neonatal	Strep.	Strep.	None	5 yrs.	Hip intact. No bone involvement
18.	D.G.	M	Neonatal	Staph.	Staph.	Femurs	9 yrs.	Bilateral. Right: head and neck disappeared. Left: head disappeared. Neck in acetabulum

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Table 1. continued

Patient	Sex	Age of Onset	Blood Culture	Hip Culture	Bone Involved	Follow-up	Results
19.	R.K.	M	Neonatal	Staph.	Femur	3 mos.	Head disappeared. Too early for follow-up
20.	C.M.	F	3 mos.	Staph.	Femur	2 yrs.	Head deformed and subluxed on neck but within acetabulum. Coxa vara
21.	L.T.	F	3 mos.	Not made	Ilium	13 yrs.	Head disappeared and regenerated on neck in acetabulum. Coxa vara. Shelf operation unsuccessful. Shelf absorbed
22.	M.S.	F	6 mos.	Not made	Femur	3 yrs.	Head deformed off neck but in acetabulum. Coxa valga
23.	P.M.	M	11 mos.	Staph.	Femur	14 yrs.	Coxa vara. Head developed Perthes' changes.
24.	R.C.	M	12 mos.	No record	Femur	3 yrs.	Head intact in acetabulum but short and deformed. Coxa vara
25.	M.L.	F	12 mos.	No record	Femur	10 yrs.	Head in acetabulum developed Perthes' changes.
26.	W.J.	M	15 mos.	No record	Femur	4 yrs.	Head undergoing Perthes' changes

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followup). Only two of the 25 followed patients healed without radiographic deformities, and 12 of the 15 patients had substantial destruction of the head and/or neck of the femurs. Antibiotics, Oblatz remarked, controlled the septicemia but not the infection within the hip. He concluded, "It is felt that early evacuation of pus from the infected hip joint, preferably by surgical drainage, will protect the cartilaginous femoral head from destruction." He did mention the possibility of repeated aspirations, rather

than open surgery, but did not comment on the relative merits of such treatment.

As noted by Oblatz, septicemia may be difficult to identify in premature and very young patients, because they do not always present with fever, chills, and sweating, as do older children. Further, even when septicemia is recognized, the source may be difficult to localize, and a joint may be secondarily infected sometime after the first empirical antibiotic has been given. Delays in treatment, particularly in children

whose infections have been inadequately treated with antibiotics, still result in major sequelae [1]. Virtually all authors agree that early treatment of the hip infection is crucial. There is less agreement and virtually no hard data to show whether repeated needle aspiration, repeated arthroscopic irrigation [5], or open surgery best minimizes the risk of deformity and subsequent clinical sequelae. It is unlikely such data will emerge: the incidence in the industrialized world is now so low, adequately powered controlled trials could not be

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performed. The crucial point, as in Oblatz's day, is early recognition and drainage.

Richard A. Brand MD
Editor-in-Chief
Clinical Orthopaedics
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Benjamin E. Oblatz, MD

Richard A. Brand MD