
Supplementary Table S1. Search Terms

Pubmed: 442 results

("Chordoma"[Mesh] OR "chordoma"[tw] OR "chordomas"[tw] OR "chorda"[tw] OR "chordosarcoma"[tw])
AND ("Sacrum"[Mesh] OR "sacrum"[tw] OR "sacrum's"[tw] OR "sacral"[tw]) AND ("General Surgery"[Mesh]
OR "Surgical Procedures, Operative"[Mesh] OR "surgery"[Subheading] OR "surgery"[tw] OR "surgeries"[tw]
OR "surgical"[tw] OR "operative"[tw] OR "operation"[tw] OR "operations"[tw] OR "resection"[tw] OR

Embase: 525 results

('chordoma'/exp OR "chordoma":ab,ti OR "chordomas":ab,ti OR "chorda":ab,ti OR "chordosarcoma":ab,ti)
AND ('sacrum'/exp OR "sacrum":ab,ti OR "sacrum's":ab,ti OR "sacral":ab,ti) AND ('surgery'/exp OR
"surgery":ab,ti OR "surgeries":ab,ti OR "surgical":ab,ti OR "operative":ab,ti OR "operation":ab,ti OR

CINAHL: 56 results

("chordoma" OR "chordomas" OR "chorda" OR "chordosarcoma") AND (MH "Sacrum" OR "sacrum" OR
"sacrum's" OR "sacral") AND (MH "Surgery, Operative+" OR "surgery" OR "surgeries" OR "surgical" OR

Web of Science: 327 results

TS=("Chordoma" OR "chordomas" OR "chorda" OR "chordosarcoma") AND ("Sacrum" OR "sacrum's" OR
"sacral") AND ("General Surgery" OR "Surgical Procedures, Operative" OR "surgery" OR "surgeries" OR

Cochrane: 1 result

"Chordoma"[Mesh] OR "chordoma" OR "chordomas" OR "chorda" OR "chordosarcoma" AND
"Sacrum"[Mesh] OR "sacrum" OR "sacrum's" OR "sacral" AND "General Surgery"[Mesh] OR "Surgical
Procedures, Operative"[Mesh] OR "surgery" OR "surgeries" OR "surgical" OR "operative" OR "operation"

Supplementary Table S2. Included Studies and Primary Outcomes

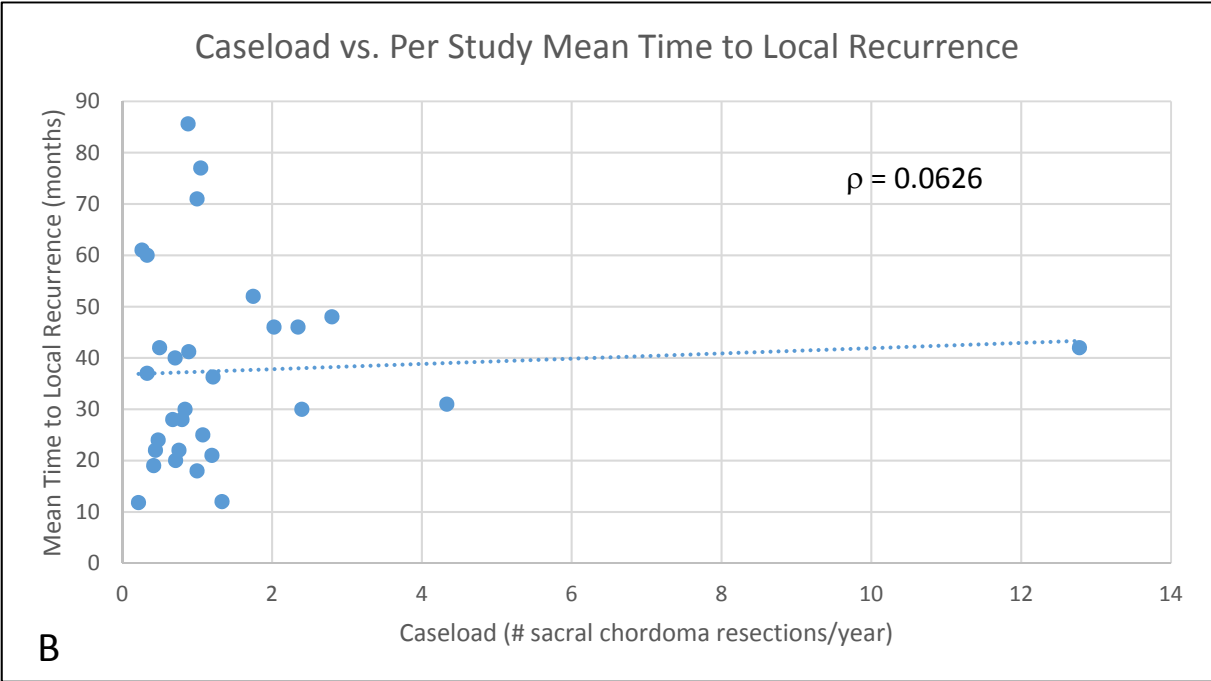
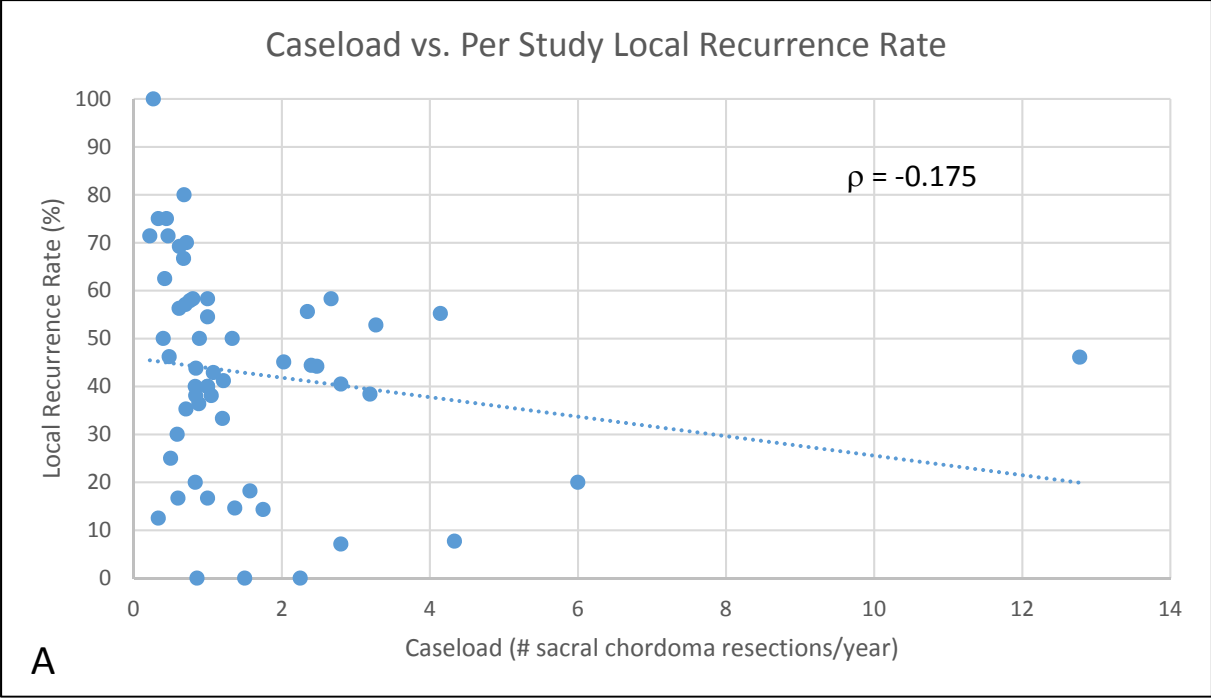
Authors	Year	Primary Institution(s) Affiliated with Treatment	Date Range of Patient Presentation	Number of Subjects Included in Review	Number of Local Rec. (%)	Number of Distant Rec. (%)	Mean Time to Local Rec. (months)	Mean Time to Distant Rec. (months)
Aguiar Junior et al. ³⁴	2014	A. C. Camargo Cancer Center, São Paulo, Brazil	1980-2006	16	9 (56)	3 (19)	-	-
Ahmed, A.R. ³⁵	2009	Alexandria University, Alexandria, Egypt	1981-2005	17	6 (35)	5 (29)	40	51
Ahmed, R et al. ⁷²	2015	University of Iowa, Iowa City, USA	1978-2010	7	5 (71)	-	12	-
Angelini, A. et al. ¹⁶	2015	University of Bologna, Bologna, Italy	1976-2011	71	32 (45)	23 (32)	46	65
Arikan, M. et al. ⁷³	2014	Oncology Training and Research Hospital, Ankara, Turkey	1991-2003	10	4 (40)	0	-	-
Asavamongkolkul, A and S. Waikakul ³⁶	2012	Mahidol University, Bangkok, Thailand	1990-2002	21	3 (14)	3 (14)	52	84
Atalar, H. et al. ³⁷	2006	Faith University, Ankara, Turkey	1986-2005	8	5 (63)	3 (38)	19	38
Bergh et al. ²²	2000	Sahlgrenska University Hospital, Goteborg, Sweden	1968-1998	30	12 (40)	9 (30)	71	74
Bohm et al. ³¹	1993	Cleveland Clinic, Cleveland, USA	1980-1992	4	3 (75)	-	37	-
Chandavarkar ⁷	1996	Tata Memorial Hospital, Bombay, India	1941-1991	50	20 (40)	-	-	-
Chen et al. ³⁸	2010	The First Affiliated Hospital of Soochow University, Suzhou, Jiangsu, China	1992-2007	36	16 (44)	-	30	-
Chung Rong et al. ³⁹	1996	Chang Gung Memorial Hospital, Taipei, Taiwan	1978-1993	7	5 (71)	-	-	-
Clarke et al. ⁴⁰	2012	Johns Hopkins Hospital, Baltimore, USA	2004-2009	30	6 (20)	1 (3)	-	-
Dhawale et al. ⁶⁹	2014	University of Miami Miller School of Medicine, Miami, USA	1985-2010	21	8 (38)	4 (19)	30	-
Dubory et al. ²⁴	2015	Bicêtre University Hospital, Paris, France	1985-2010	22	8 (36)	3 (14)	86	104
Eid et al. ⁴¹	2011	Korea Cancer Center Hospital, Seoul, South Korea	1993-2008	12	7 (58)	3 (25)	28	-
Froehlich et al. ⁴²	2012	Medical University of Graz, Graz, Austria; National Centre for Spinal Disorders, Budapest, Hungary	1985-2010	19	11 (58)	1 (5)	22	-
Fuchs et al. ²⁵	2005	Mayo Clinic, Rochester, USA	1980-2001	52	23 (44)	-	-	-
Furlani et al. ³²	1980	University of Padova, Padua, Italy	1967-1976	4	3 (75)	1 (25)	22	-
Garafalo et al. ⁷⁴	2014	University Hospital of Lausanne, Lausanne, Switzerland	2001-2011	7	4 (57)	1 (14)	-	18
Housari and Gonzalez ²³	2013	Hospital Universitario Ramo'n y Cajal, Madrid, Spain	1988-2009	13	9 (69)	5 (39)	-	-
Huth et al. ⁷⁵	1984	UCLA School of Medicine, Los Angeles, USA	-	4	1 (25)	-	8	-

Supplementary Table S2. Included Studies and Primary Outcomes (part 2)

Authors	Year	Primary Institution(s) Affiliated with Treatment	Date Range of Patient Presentation	Number of Subjects Included in Review	Number of Local Recurrences	Number of Distant Recurrences	Mean Time to Local Rec. (months)	Mean Time to Distant Rec. (months)
Ishii et al. ⁷⁶	2002	Keio University, Tokyo, Japan	1987-2002	4	4 (100)	1 (25)	61	-
Jao et al. ⁷⁷	1985	Mayo Clinic, Rochester, USA	1960-1979	16	7 (44)	4 (25)	-	-
Ji et al. ¹⁸	2016	Peking University, Beijing, China	2003-2012	115	53 (46)	20 (17)	42	-
Kayani et al. ¹⁹	2015	The Royal National Orthopaedic Hospital, Stanmore, United Kingdom	1999-2013	58	32 (55)	19 (33)	-	-
Li et al. ³³	2013	China-Japan Union Hospital of Jilin University, Jilin, China	1999-2010	36	19 (53)	-	-	-
Localio et al. ⁵⁵	1980	New York University Medical Center, New York City, USA	1964-1979	8	1 (13)	-	60	-
Makhdoomi et al. ²⁷	2012	Sher-i-Kashmir Institute of Medical Sciences, Kashmir, India	2006-2011	14	1 (7)	-	48	-
Moojen et al. ⁴⁴	2011	Leiden University Medical Center, Leiden, Netherlands	1981-2003	15	12 (80)	4 (27)	-	120
Nishida et al. ¹⁴	2011	Nagoya University Hospital, Nagoya Memorial Hospital, Aichi Cancer Center Central Hospital, Nagoya, Japan	1990-2007	10	3 (30)	2 (20)	-	-
Osaka et al. ⁴⁵	2014	Nihon University School of Medicine, Tokyo, Japan	1981-2013	16	4 (25)	3 (19)	42	-
Ozaki et al. ⁴⁶	1997	Westfälische Wilhelms-University, Munster, Germany	1982-1993	11	6 (55)	2 (18)	-	26
Ozger et al. ⁷⁸	2010	Istanbul University, Istanbul, Turkey	1993-2007	17	7 (41)	3 (18)	36	40
Park et al. ²⁸	2006	Massachusetts General Hospital, Boston, USA	1982-2002	21	8 (38)	5 (24)	77	71
Prabhakaran et al. ⁴⁷	1998	Kidwai Memorial Institute of Oncology, Bangalore, India	1984-1993	8	4 (50)	3 (38)	41	-
Puri et al. ⁴⁸	2009	Tata Memorial Hospital, Bombay, India	2000-2005	6	2 (33)	1 (17)	21	-
Radaelli et al. ²⁰	2016	National Cancer Institute, Milan, Italy; Istituto Ortopedico Rizzoli (IOR), Bologna, Italy	1981-2012	99	38 (38)	28 (28)	-	-
Randall et al. ²⁶	2005	University of Washington Medical Center, Seattle, USA	1987-1997	6	1 (17)	2 (33)	-	-
Ruosi et al. ⁷⁹	2015	National Tumour Institute of Naples—Pascale, Naples, Italy	2000-2013	14	6 (43)	4 (29)	25	45
Sahakitrungruang et al. ⁸⁰	2009	King Chulalongkorn Memorial Hospital, Bangkok, Thailand	2000-2007	6	0	0	-	-

Supplementary Table S2. Included Studies and Primary Outcomes (part 3)

Authors	Year	Primary Institution(s) Affiliated with Treatment	Date Range of Patient Presentation	Number of Subjects Included in Review	Number of Local Recurrences	Number of Distant Recurrences	Mean Time to Local Rec. (months)	Mean Time to Distant Rec. (months)
Schoenthaler et al. ²⁹	1993	University of California San Francisco Medical Center, San Francisco, USA	1977-1989	12	7 (58)	2 (17)	-	30
Schwab et al. ⁴⁹	2009	Sloan Kettering Cancer Center, New York, USA	1990-2005	42	17 (40)	13 (31)	-	-
Simpson et al. ⁸¹	1995	Mount Sinai Hospital, University of Toronto, Toronto, Canada	1986-1992	6	1 (17)	-	18	-
Sundareson et al. ⁸²	1987	Sloan Kettering Cancer Center, New York, USA	1978-1985	11	2 (18)	-	-	-
Thieblemont et al. ⁵⁰	1995	Centre Leon Berard, Lyon, France; Centre Hospitalier Lyon Sud, Pierre-Bénite, France	1979-1993	10	7 (70)	3 (30)	20	59
Waisman et al. ⁵¹	1997	Carmel Medical Center, Technion Haifa, Israel	1987-1993	5	1 (20)	-	-	-
Wong and Kumta ⁸³	2013	Prince of Wales Hospital, Shatin, Hong Kong	2006-2009	4	2 (50)	2 (50)	12	12
Wuisman et al. ⁸⁴	2000	University Hospital Vrije Universiteit, Amsterdam, Netherlands	1988-1998	4	2 (50)	2 (50)	-	-
Xie et al. ²¹	2015	The Royal Orthopaedic Hospital, Birmingham, United Kingdom	1990-2013	54	30 (56)	5 (9)	46	-
Xu et al. ⁸⁵	1990	Beijing Ji Shui Tan Hospital, Beijing, China	1958-1988	41	6 (15)	-	-	-
Xue-Song et al. ⁵²	2010	Sichuan University, Sichuan, China	2004-2008	9	0	0	-	-
Yang et al. ⁵³	2016	Beijing Ji Shui Tan Hospital, Beijing, China	2007-2013	26	2 (8)	-	31	-
Yonemoto et al. ⁸⁶	1999	Chiba Cancer Center, Chiba, Japan	1972-1999	13	6 (46)	6 (46)	24	38
York et al. ⁵⁴	1999	University of Texas M.D. Anderson, Houston, USA	1954-1994	27	18 (67)	6 (22)	28	-
Zaaroor and Svirij ⁸⁷	2005	Israel Institution of Technology, Haifa, Israel	2000-2004	6	0	-	-	-
Zabel-du Bois ³⁰	2010	German Cancer Research Center, Heidelberg, Germany	2000-2009	24	14 (58)	1 (4)	-	-



Supplementary Figure 1: Correlation between institutional sacral chordoma caseload and local recurrence outcomes. A) Caseload vs. per study local recurrence rate. Pearson correlation coefficient for these two variables was $\rho = -0.175$. B) Caseload vs. per study mean time to local recurrence in months. Pearson correlation coefficient for these two variables was $\rho = 0.0626$.

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