Study	Surgical management	Margins	Recurrence	Survival/Outcome	Follow up time
	With least maining 50 (1000()		Locoregional - 4		
Augenstein et al. 2012 16	Wide local excision - 59 (100%)	Not specified	(8.5%) distant - 5 (10.6%)	Not specified	Not specified
· ·	Wedge resection - 7 (53.9%)			•	•
	Total auriculectomy - 3 (23.1%) Excision and skin grafting - 2 (15.4%)				
	Partial auriculectomy - 1 (7.7%)				
Benmeir et al. 1995 6	Wide local excision of retroauricular	Not specified	Overall - 1 (7.7%)	Mean - 45.77 months	Not specified
	area with elective modified radical lymph				
Cohen et al. 1990 <sup>41</sup>	node dissection - 1 (100%)	3cm	Overall - 0 (0%)	1 year	1 year
	Local excision with split thickness graft - 3 (9.7%)				
	Wedge excision - 16 (51.6%)				
	Partial amputation - 10 (32.3%) Total amputation - 2 (6.5%)		Local - 2 (6.5%) Local/regional - 4	1 year - 31 (93%) 2 years - 27 - (85%)	
G 1 1 4000 9	*elective radical neck dissection in 5		(12.9%)	5 years - 25 (77%)	
Cole et al. 1992 9	cases	Not specified	Distant - 4 (12.9%)	10 years - 17 (47%)	7.12 years
	"most were treated with partial				
	amputation. Two with posterior ear melanoma treated				
	conservatively with only removal of skin				
Craig et al. 2012 22	an perichondrium"	Not specified	Not specified - no outcomes data	Not specified	Not specified
cruig et ul. 2012	pertenonarium	rior specifica	outcomes unu	2 years - 60%	rior specifica
				5 years - 12%	
	No treatment with follow up: 36 (35.3%)			10 years - 6%	
	Wedge excision: 36 (35.3%)			46 (45%) died from	
Byers et al. 1980 10	Partial amputation: 21 (20.6%) Total amputation: 9 (8.8%)	Not specified	Not specified	melanoma at conclusion of study	2 year minimum or until death
	· · · ·		Local (wedge group) -	Wedge group - 57.2	
			6 (100% of wedge	months (mean)	
			group)	Wide local excision	
			Local (Wide local	group - 33.4 months	
			excision group) - 0 (0%)	(mean); 1 died at 41 months with lung	
				mets	48.33 months
		wedge group mean - 6mm	Distant (Wide local excision group) - 1	Amputation - No	(range: 4-133 months) - endpoints
	Wedge resection - 6 (50%)	wide local	(20%)	evidence of disease at	were death and last
Hudson et al. 1990 <sup>1</sup>	Wide local excision - 5 (41.7%) Total ear amputation - 1 (8.3%)	excision group mean - 12mm	Amputation - 0 (0%)	70 months	follow up; 60.3 months in survivors
	1 ()		Recurrence free		
			survival: 83% at 3		
			years; 79% at 5 years		
			First recurrence	14 (8.7%) died of	
			Local: 14 (8.7%) satellite/in transit: 6	melanoma related	
			(3.7%) Lumph pode: 10	causes	
			Lymph node: 10 (6.2%)	3 years - 98%	
Jahn et al. 2005 15	Not specified	12.6 mm (mean	Distant: 8 (5%)	5 years - 96%	Median - 62 months
			1/3 had recurrence at mean follow up of 29		
			months		
	Wide local excision - 49 (82%)		Local - 9 (15%) Metastasis - 7	5 years - 85%	
Jones et al. 2013 23	Mohs - 10 (17%)		(11.7%)	10 years - 77%	M F 20 4
Jones et al. 2013	Partial amputation - 1 (1%)	Not specified	Both - 4 (6.7%) Local - 0 (0%)		Median - 38 months
			Regional - 1 at 25		
	Wide local excision sparing cartilage		months (5.6%) Distant - 1 at 41	Overall - 72%	
McCarty et al. 2013 21		1-2 cm	months (5.6%)	Disease free - 89%	Mean - 30.5 months
	Wide local excision (neck dissection in 8		Local - 1 (4.8%)	Overall - 85% 5 year disease free	
Narayan et al. 2001 17	patients)	Not specified	Regional - 2 (9.5%)	survival - 43%	Mean - 3.5 years
	Wide excision - 40		Local - 8 (19%)		
Pack et al. 1970 12	Other - 1	Not specified	Regional - 14 (33.3%)	Not reported	Not specified
	Excision of skin sparring cartilage - 7 (9%)	< 1 cm - 25 (33.3%)			
	Wedge excision - 45 (59%)	$\geq 1~\mathrm{cm}$ - 29	Local - 10 (12.8%)		
	Partial amputation - 8 (11%) Complete amputation - 5 (7%)	(37.2%) not specified -	Regional - 9 (11.5%) Systemic - 17 (21.8%)		
Pockaj et al. 2003 11	Mohs - 11 (14%)	22 (28.2%)	- journe - 17 (21.0%)	5 years - 65%	Mean - 55.7 months
	Wedge/local excision - 161 (80.9%) Amputation - 5 (2.5%)	Attempted clear margins;	Local = 54 (27%)		
	Total excision - 26 (13.1%)	no specific	Distant = 28 (14%)		
Ravin et al. 2006 31	Biopsy only - 6 (3%)	margin	Regional nodes = 117 (59%)	Overall mean - 7.9	Madian 22
Ravin et al. 2006	Subtotal excision - 1 (1%) Wide local excision - 7 (77.8%)	mentioned	(39%)	years	Median - 3.3 years
	Partial amputation - 2 (22.2%)			o "	
Sartore et al. 2012 18	Cartilage spared in 2/9	1.83 cm (mean)	0 (0%)	Overall mean - 4.36 years	Median - 6.33 years
		0.5cm - 6	~ (~)		cito yours
	Wedge excision with skin and cartilage -	(30%) 1cm - 8 (40%)	Local - 0 (0%)		
	14 (70%)	>1cm - 6	Regional - 7 (35%)	Overall - 65% (mean)	
Bono et al. 1997 14	Partial amputation - 6 (30%) Surgical excision with wide margins- 14	(30%)	Distant - 2 (10%)		Mean = 57 months
	(87.5%)		5 (31.25%) mean at	Overall - 62.5%	Mean - 50 months
Davidsson et al. 1993 13	amputation - 2 (12.5%)	not specified	time of 16 months		
Anderson et al. 1999 39	Wide local excision - 1 (100%) Wide local excision with neck dissection	1cm	Not specified Local - 0 (0%)	Not specified	Not specified
10	including parotidectomy and partial		Regional - 0 (0%)		
Kruse-Losler et al. 2006 40	mastoidectomy - 1 (100%)	2cm	Distant - 0 (0%)	Overall - 100%	12 months
			Overall - 13.7% Locoregional - 12		
			(11.8%)	80.2% -1: :-1	
			Visceral - 2 (2%) 102 patients with	89.2% alive with no disease at last follow-	Mean - 41 months
Peach et al. 2013 4	Not specified	Not specified	follow-up	up	Median - 30 months