



# Journal of Cancer Diagnosis

Research Article

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Table 1:

Search Database	Search Strategy	Publications
Pubmed	(Oral cancer), (Neck and Head cancer), delay in diagnosis), types of delay, Patients delay, (Treatment Delay, (Doctor's Delay), follow up delay,) (Reasons for Delay)	101
Embase	(Oral cancer), (Neck and Head cancer), delay in diagnosis), types of delay, Patients delay, (Treatment Delay, (Doctor's Delay), follow up delay, ) (Reasons for Delay)	152
Google scholar	(Oral cancer), (Neck and Head cancer), delay in diagnosis), types of delay, Patients delay, (Treatment Delay, (Doctor's Delay), follow up delay, ) (Reasons for Delay)	79
Scopus	(Oral cancer), (Neck and Head cancer), delay in diagnosis), types of delay, Patients delay, (Treatment Delay, (Doctor's Delay), follow up delay, ) (Reasons for Delay)	140

Table 2: Primary-delay study characteristics.

Sr No	Author	Country	Year	Gender	Type of Study	Sample Size (Patients)	Mean (days)	Sd (days)
1.		Scotland	2010	Male=7 Female=8	Retrospective	15	38.92	7.65
2.	Zachary S. Peacock et al.	San Francisco	2008	-	Cross -Sectional	50	104.7	121
3.	Jafari A et al.	Iran	2013	Male=159 Female=97	Retrospective-Descriptive	110	270	37
4.	Oliveira dos Santos et al.		2010	Male=52 Female=22	Prospective – Cross-Sectional	74	159.35	72.18
5.	A.Dwivedi et al.	India	2012	Male=161 Female=242	Cross-Sectional	403	101.7	219.5
6.	R. Hansen et al.	Denmark	2011	-	Cohort Study	2212	21	8.17
7.	T. Lopes et al.		2017	Male=18 Female=82	Retrospective Cross-sectional	82	61.5	165.5
8.		Netherlands	2011	-	Cross-Sectional	50	129	121.67
9.	M. Haimi et al.	Israel	2004	-	Retrospective	315	31	86.6



Figure 2: Flow chart of the studies included in our review and met-analysis.

and one each from Iran, Scotland, Netherlands, Israel, Denmark, San Francisco and Spain. There are Retrospective, Cross -Sectional, Retrospective- Descriptive, Prospective – Cross-Sectional and Cohort Study involved in our study [10]. The major characteristics of studies

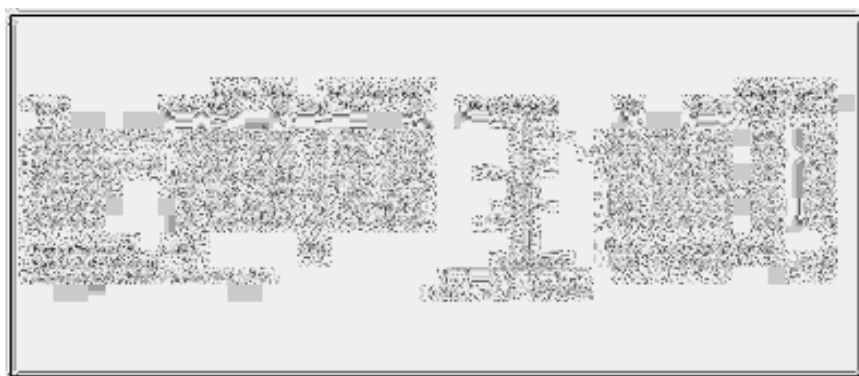
have been mentioned in Table 3-5. A total of 3311 patients in primary delay study, 3429 patients in Secondary delay and 3062 patients in tertiary delay study and evaluated. The number of patients amongst individual studies that were evaluated ranged from 15 to 2212 (Figure 3).

**Table 3:** Secondary-delay study characteristics.

Sr No	Author	Country	Year	Gender	Type of Study	Sample Size (Patients)	Mean (days)	Sd (days)
1.	Zachary S. Peacock et al.	San Francisco	2008	-	Cross -Sectional	50	35.9	46.67
2.	Jafari A et al.	Iran	2013	Male=159 Female=97	Retrospective- Descriptive	110	90	7
3.	Cedrúna et al.	Spain	2020		Retrospective-Hospital Based	183	107	85.2
4.	Oliveira dos Santos et al.		2010	Male=52 Female=22	Prospective – Cross-Sectional	74	114.89	85.2
5.	A.Dwivedi et al.	India	2012	Male=161 Female=242	Cross-Sectional	403	142.1	49.17
6.	R. Hansen et al.	Denmark	2011	-	Cohort Study	2212	0	0.33
7.	T. Lopes et al.		2017	Male=18 Female=82	Retrospective Cross-sectional	82	41	165.5
8.	M. Haimi et al.	Israel	2004	-	Retrospective	315	70.21	153.6

**Table 4:** Tertiary-delay study characteristics.

Sr No	Author	Country	Year	Gender	Type of Study	Sample Size (Patients)	Mean (days)	Sd (days)
1.	A.Dwivedi et al.	India	2012	Male=161 Female=242	Cross-Sectional	403	97.5	166.2
2.	R. Hansen et al.	Denmark	2011	-	Cohort Study	2212	55	10.17
3.	T. Lopes et al.		2017	Male=18 Female=82	Retrospective Cross-sectional	82	87.5	65
4.		Netherlands	2011	-	Cross Sectional	50	10	8.25
5.	M. Haimi et al.	Israel	2004	-	Retrospective	315	86.17	153.86



**Figure 3:** Forest Plot between Primary and Secondary Delay.

**Table 5:** Bias risk assessment.

Study						Score
	2	1	1	2	2	8
Zachary S. Peacock et al.	2	1	1	2	1	7
A.Dwivedi et al.	2	1	2	2	2	9
R. Hansen et al.	2	1	1	2	2	8
T. Lopes et al.	2	1	1	2	2	8
	2	1	1	2	2	8
M. Haimi et al.	2	2	1	2	2	9
	2	2	2	2	2	10
Oliveira dos Santos et al.	2	1	1	2	2	8
Jafari A et al.	2	2	2	2	1	9

Note: A clearly stated aim; Inclusion of consecutive patients; Prospective collection of data; Endpoints appropriate to the aim of the study; Unbiased assessment of the study endpoint. The items are scored 0 (not reported), 1 (reported but inadequate), or 2 (reported and adequate). The global ideal score being 10 for non-comparative studies

Based on the Oxford Centre for Evidence-based Medicine Levels of Evidence<sup>32</sup>, all the 10 studies were graded as shown in Table 4. Risk of bias assessment was done for all studies as per Cochrane Risk of Bias assessment tool 2 (RoB2). Risks of bias in all the domains were low (except the domain of bias due to deviations from intended interventions where it was “some concerns” [11]).

## Outcomes

**Secondary vs tertiary delay:** There is a significant difference between the means in primary and secondary delay (Mean Difference (MD) = -17.81, CI = -73.61 – 38.00, I<sup>2</sup>=98%, p<0.01) for Random Effect Model and (Mean Difference (MD) = -54.92, CI = -55.35 – 54.50, I<sup>2</sup>=98%, p<0.01) for Fixed Effect Model (Figure 4).

**Primary and tertiary delay:** There is a significant difference between the means in primary and secondary delay (Mean Difference (MD) = -0.17, CI = -41.52 – 41.18, I<sup>2</sup>=96%, p<0.01) for Random Effect

have been removed. Smaller cancers may be removed through minor surgery while larger tumors may require more-extensive procedures.

Romer J, et al. (2012)