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## **TYPES OF TOOTH DISCOLORATION IN ADULTS OF RAMADI CITY, AL-ANBAR PROVINCE, IRAQ: STATISTICAL STUDY**

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**ABSTRACT:** During the period June 2005 to June 2006, 158 patients with teeth discoloration were interviewed regarding the causes of discoloration. Most common cause of discoloration teeth in females was the caries, whereas trauma and dentin development problems were the most common two causes of teeth discoloration in males.

*. Key words: Types , tooth discoloration , adults , Ramadi city, statistical*

### **Introduction**

One of the most frequent dental problem that confronted dentists, is tooth discoloration. Tooth discoloration is caused by multiple local and systemic conditions (Vogel, 1975) [1]. Extrinsic dental stains are caused by predisposing factors and other factors such as dental plaque and calculus, foods and beverages, tobacco, chromogenic bacteria, metallic compounds, and topical medications. Intrinsic dental stains are caused by dental materials (eg, tooth restorations), dental conditions and caries, trauma, infections, medications, nutritional deficiencies and other disorders (eg, complications of pregnancy, anemia and bleeding disorders, bile duct problems), and genetic defects and hereditary diseases (eg, those affecting enamel and dentin development or maturation) [2].

Certain factors predispose children and adults to extrinsic

stains, including enamel defects, salivary dysfunction, and poor oral hygiene [3]. Microscopic pits, fissures, and defects in the outer surface of the enamel are susceptible to the accumulation of stain-producing food, beverages, tobacco, and other topical agents [3].

Since discoloration is a change in the normal color of the tooth, therefore, it may have an effect on the self confidence and personality of the adult, particularly if the adult is female.

Accordingly, this research work aims to identify as possible the different types of causes that lead to tooth discoloration.

### **Patients and methods**

During the period June 2005 to June 2006, a total of 158 cases of tooth discoloration were recorded in a private dental clinic. Social information like age, sex, and educational level was recorded for each patient along with the cause of tooth discoloration.

Patients of this research work are all adults their ages ranged between 20 and 68 years. Children and teenagers were excluded from this research work.

The data then were subjected to statistical analysis.

### **Results**

Table 1 shows the distribution of the cases according to age and gender groups. For both gender groups, most of the cases fall in the age group 40-49, with a percentage of 34.17%. Except age group 40-49, males are scored the highest percentages of having discolored teeth than females.

With respect to the educational level, table 2 shows the distribution of the cases according to age and gender groups with respect to the educational level. Cases with education levels illiterate and primary school contributed for 48.73% of the total sample, whereas other cases accounted for 32.91% with secondary school level of education, and the rest of the cases with higher educated and accounted for 18.35% of the total sample.

Table 3 represents the cases according to age and gender groups with respect to the cause of discoloration. It is very clear from figure 1 that females scored the highest percentages for the causes 1,2,4,5, and 9 whereas males scored the highest percentages for the other causes (3,6,7,8).

### **Discussion**

In this study the most common cause for females' teeth discoloration is found to be caries which accounted for 26.56% of the total cases of females, while the most common causes for males were trauma and dentin development problems which account each of the for the same percentage of 22.34%.

Most of the cases of teeth discoloration occurred in the age range 30-60. This does not mean that tooth discoloration is an age related problem, rather the lack of dental hygiene will accumulate dental problems which by time probably lead to tooth discoloration. However, some authors believed that the dentin underneath the enamel of a tooth gradually darkens with age [4].

Deposition of tannins found in tea, coffee, and other beverages cause brown stains on the outer (buccal, labial) and inner (lingual, palatal) surfaces of the teeth, which if not treated immediately, by the time will cause tooth discoloration.

In different studies, there was no significant difference in the percentages of occurrence for the different causes of tooth discoloration with respect to gender groups [5].

### **References**

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**Table 1. Distribution of cases according to age and gender groups.**

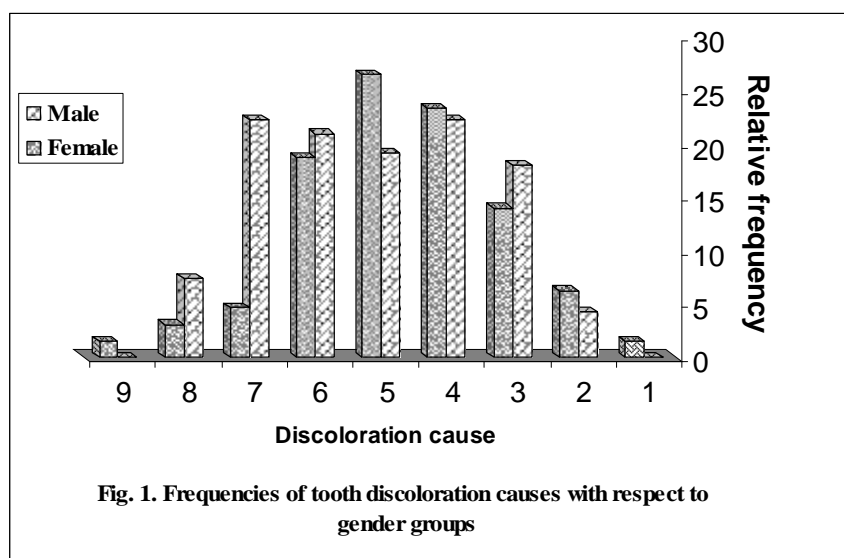
Age class	Male		Female		Total	
	No.	%	No.	%	No.	%
20-29	6	66.67	3	33.33	9	5.70
30-39	17	60.71	11	39.29	28	17.72
40-49	22	40.74	32	59.26	54	34.17
50-59	35	74.47	12	25.53	47	29.75
60-69	14	70.00	6	30.00	20	12.66
Total	94	59.49	64	40.51	158	100

**Table 2. Distribution of cases according to educational level, age and gender groups.**

Education	20-29		30-39		40-49		50-59		60-69		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
Illiterate	-	-	-	2	3	5	4	5	1	4	8	16
Primary	2	1	4	3	7	13	11	6	4	2	28	25
Secondary	3	2	9	3	5	9	12	1	8	0	37	15
Higher	1	0	4	3	7	5	8	0	1	0	21	8
Total	6	3	17	11	22	32	35	12	14	6	94	64

**Table 3. Distribution of cases according to cause of discoloration, age and gender groups.**

Cause of discoloration	20-29		30-39		40-49		50-59		60-69		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1.Bile duct problem	0	0	0	0	0	1	0	0	0	0	0	1
2.Topical medication	1	0	0	1	1	2	2	1	0	0	4	4
3.Tooth restoration	1	0	3	2	4	5	4	1	5	1	17	9
4.Trauma	2	0	7	3	4	5	5	6	3	1	21	15
5.Caries	0	1	3	3	6	8	9	1	0	4	18	17
6.Dentin development	0	2	4	1	5	6	9	3	3	0	21	12
7.Chromogenic bacteria	1	0	0	0	1	3	3	0	1	0	6	3
8.Plaque	1	0	0	0	1	2	3	0	2	0	7	2
9.Smoking	0	0	0	1	0	0	0	0	0	0	0	1
Total	6	3	17	11	22	32	35	12	14	6	94	64



دراسة تغير لون الأسنان عند البالغين في مدينة الرمادي بمحافظة الانبار -  
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**الخلاصة:**

خلال الفترة الممتدة من حزيران ٢٠٠٥ الى حزيران ٢٠٠٦ ، تمت مقابلة ١٥٨ مريضاً يعانون من تغير لون اسناتهم بهدف معرفة السبب الذي يؤدي الى حدوث هذه الحالة. لقد وجد ان السبب الشائع في هذه الحالة عند الاناث هو تسوس الاسنان ، بينما وجد ان التروما و الدينتن هما السببين الاكثر شيوعاً عند الذكور.