

LIST OF FIGURES

Figures	Title	Pages
2.1	Selected samples for the honey purity tests.	31
2.2	Spectrophotometer for HMF level test.	34
2.3	ATAGO HHR-2N hand held refractometer.	37
2.4	Prism of refractometer covered with honey.	37
2.5	Percentage of HMF level of in 21 samples.	40
2.6	Percentage of reducing sugars in 21 samples.	43
2.7	Percentage of sucrose level of 21 samples.	43
2.8	Ratio of fructose/glucose of 21 samples.	43
2.9	Hydrogen peroxide formation in 21 samples.	49
3.1	<i>Sprague Dawley</i> rats weighing 180-300g were the experimental animal for this study	55
3.2	Experimental wound model of 4cm ² area used in this study.	59
3.3	Injection of Ketamine and Xylazine at gluteal of rat.	60
3.4	Outlined of excision wound to be made by wound mold.	60
3.5	Subcutaneous injection of local anesthesia before wound creation.	61
3.6	Weight (g) of rats in the treatment groups on different days of treatments.	66
3.7	Time required for wound healing in rats.	67
3.8	Morphology of experimental wounds of the five treatment groups on Day 0 of treatments	68
3.9	Morphology of experimental wounds of the five treatment groups on Day 1 of treatments	69
3.10	Morphology of experimental wounds of the five treatment groups on Day 5 of treatments	70
3.11	Morphology of experimental wounds of the five treatment groups on Day 10 of treatments	71

3.12	Morphology of experimental wounds of the five treatment groups on Day 15 of treatments	73
3.13	Longitudinal wound diameter (cm) in the five treatment groups.	75
3.14	Transverse wound diameter (cm) in the five treatment groups.	76
3.15	Measurement of the size of wound area vs day of treatments.	77
3.16	Healed area of the rats in the five treatment groups.	79
3.17	Rate of contraction (%) of longitudinally wound diameter according to treatment groups.	80
3.18	Rate of contraction (%) transverse wound diameter.	81
3.19	Contraction of wound area (%) according to day of treatments.	82
3.20	Color of wound bed according to day of treatments.	84
3.21	Dryness of wound bed based on the scale.	85
3.22	Wound exudates as treatments progressed.	86
3.23	Types of exudate according to group of treatments	87
3.24	Amount of necrotic tissue present in experimental wounds.	89
3.25	Types of necrotic tissue found on experimental wounds.	90
3.26	Amount of scab present in wound bed.	91
3.27	The color of scab found on wound during the study.	93
3.28	Texture of scabs according to day and types of treatments.	94
4.1	Automated tissue processing machine.	115
4.2	Embedding station.	117
4.3	Microtome used for sectioning of paraffin blocks.	117
4.4	Water bath (left and hot plate (right)).	118
4.5	Number of macrophages in the treatment groups on	126

	different day of treatments.	
4.6	Epithelialization of the wounds in the treatments groups on different days of treatments.	128
4.7	Angiogenesis process in the wounds of all treatments groups on different days of treatments.	129
4.8	Fibroplasia process in the wounds of all treatments groups on different days of treatments.	131
4.9	Collagen content in the wounds of all treatments groups on different days of treatments.	132
4.10	Histology of wound area according to group of treatments on Day 1 of Treatments.	133
4.11	Histology of wound edges in Group NO (No Dressing) on Day 1 of treatments.	134
4.12	Histology of early formed granulation tissue in-Group NO (No dressing) on Day 1 of treatments.	135
4.13	Histology of wound in Group SA (Saline) on Day 1 of treatments.	135
4.14	Cells migration in Group IN (Intrasite) on Day 1 of treatments.	136
4.15	Demarcation line found in Group IN (Intrasite) on Day 1 of treatments.	136
4.16	Cell migration and blood vessels in wound area of the Group GE (Gelum) on Day 1 of treatments.	137
4.17	Wound area of Group GE (Gelum) on Day 1 of treatments.	137
4.18	Histology of wound in Group NE (Nenas) on Day 1 of treatments.	138
4.19	Histology of wound area according to group of treatments on Day 5 of Treatments	138
4.20	Fibroblast and blood vessels found in the wound area of Group NO (No dressing) on Day 5 of treatments.	140
4.21	Wound area in the wound of Group NO (No dressing) on Day 5 of treatments.	140
4.22	Epithelialization in the wound of Group NO (No dressing) on Day 5 of treatments.	141

4.23	Blood vessels in the wound area of Group SA (Saline) on Day 5 of treatments.	142
4.24	Cell migration near wound edges in Group SA (Saline) on Day 5 of treatments.	142
4.25	Histology of wound in Group SA (Saline) on Day 5 of treatments.	142
4.26	Histology of wound in Group SA (Saline) on Day 5 of treatments.	143
4.27	Blood vessels, collagen and fibroblast in wound area of Group SA (Saline) on Day 5 of treatments.	143
4.28	Epithelialization in Group IN (Intrasite) on Day 5 of treatments.	144
4.29	Histology of wound of Group IN (Intrasite) on Day 5 of treatments.	144
4.30	Level of collagen and fibroblast in wound area of Group IN (Intrasite) on Day 5 of treatments.	144
4.31	Histology of wound in Group IN (Intrasite) on Day 5 of treatments.	145
4.32	Blood in the wound area in Group GE (Gelam) on Day 5 of treatments.	146
4.33	Histology of wound in Group GE (Gelam) on Day 5 of treatments.	146
4.34	Blood vessels, collagen and fibroblast in wound area of Group GE (Gelam) on Day 5 of treatments.	146
4.35	Histology of wounds in Group GE (Gelam) on Day 5 of treatments.	147
4.36	Histology of wound area in Group GE (Gelam) on Day 5 of treatments.	147
4.37	Cells migration in the wound of Group NE (Nenas) on Day 5 of treatments.	148
4.38	Different between the wound area and normal skin found in wound of Group NE (Nenas) on Day 5 of treatments.	148
4.39	Histology of wound for Group NE (Nenas) on Day 5 of treatments.	148

4.40	Histology of wound area in Group NE (Nenas) on Day 5 of treatments.	149
4.41	Histology of wound in Group NE (Nenas) on Day 5 of treatments.	149
4.42	Histology of wound area according to group of treatments on Day 10 of Treatments.	151
4.43	Histology of wound in Group NO (No dressing) on Day 10 of treatments.	152
4.44	Blood vessels in the granulation tissue of Group NO (No dressing) on Day 10 of treatments.	152
4.45	Histology of wound in Group NO (No dressing) on Day 10 of treatments.	153
4.46	Angiogenesis in the granulation tissue of Group SA (Saline) on Day 10 of treatments.	154
4.47	Wound edge on Group SA (Saline) on Day 10 of treatments.	154
4.48	Granulation Tissue of Group SA (Saline) on Day 10 of treatments.	154
4.49	Histology of granulation tissue of Group SA (Saline) on Day 10 of treatments.	155
4.50	Epithelial cells layer at the wound edge of Group SA (Saline) on Day 10 of treatments.	155
4.51	Cell migration and wound edge Group IN (Intreasite) on Day 10 of treatments.	156
4.52	Histology of wound of Group IN (Intrasite) on day 10of treatments.	156
4.53	Granulation tissue of Group IN (Intrasite) on Day 10 of treatments.	156
4.54	Blood vessels found in the granulation tissue of Group GE (Gelang) on Day 10 of Treatments.	157
4.55	Blood vessels found in the granulation tissue of wound in Group GE (Gelang) on Day 10 of Treatments.	158
4.56	Histology of wound in Group GE (Gelang) On Day 10 of treatments.	158

4.57	Angiogenesis found on wound of Group NE (Nenas) on Day 10 of treatments.	159
4.58	Histology of wounds of Group NE (Nenas) on Day 10 of treatments.	159
4.59	Granulation tissue of Group NE (Nenas) on Day 10 of treatments.	160
4.60	Histology of wound area according to group of treatments on Day 15 of Treatments.	162
4.61	Granulation tissue in Group NO (No dressing) on Day 15 of treatments.	163
4.62	Collagen level in granulation tissue of Group NO (No dressing) on Day 15 of treatments.	163
4.63	Granulation tissue of Group NO (No dressing) on Day 15 of treatments.	163
4.64	Wounds of Group SA (Saline) on Day 15 of treatments.	164
4.65	Blood vessels of the wound of Group SA (Saline) on Day 15 of treatments.	164
4.66	Histology of wound of Group SA (SAline) on Day 15 of treatments	165
4.67	Histology of wound of Group SA (Saline) on Day 15 of treatments.	165
4.68	Granulation tissue of Group IN (Intrasite) on Day 15 of treatments.	166
4.69	Blood vessels and collagen in granulation tissue of Group IN (Intrasite) on Day 15 of treatments.	166
4.70	Granulation tissue of Group IN (Intrasite) on Day 15 of treatments	166
4.71	Wound area of Group GE (Gelam) on Day 15 of treatments.	167
4.72	Wound area of Group GE (Gelam) on Day 15 of treatments.	168
4.73	Collagen in the granulation tissue of Group GE (Gelam) on Day 15 of treatments.	168

4.74	Wound area of Group GE (Gelum) on Day 15 of treatments.	168
4.75	Histology of wound of Group NE (Nenas) on Day 15 of treatments.	169
4.76	Granulation tissue of Group NE (Nenas) on Day 15 of treatments.	170
4.77	Granulation tissue of Group NE (Nenas) on Day 15 of treatments.	170
