

CONTENTS

SUMMARY	5
1. ACUTE PHASE PROTEINS (APP)	9
1.1 APP IN ACUTE PHASE RESPONSE	9
1.2 CHARACTERISTICS OF MONITORED APP.....	12
1.2.1 α_1 -antitrypsin (AAT)	12
1.2.2 α_1 -acid glycoprotein (AGP)	14
1.2.3 α_2 -macroglobulin (AM)	15
1.2.4 Haptoglobin (Hp) and hemopexin (Hpx)	16
1.2.5 Ceruloplasmin (Cpl)	17
1.2.6 C-reactive protein (CRP)	18
1.2.7 Albumin (Alb).....	20
1.2.8 Prealbumin (PA)	21
1.2.9 Transferrin (Trf).....	21
1.3 REGULATION OF THE APP SYNTHESIS BY CYTOKINES.....	21
1.4 PLURIPOTENT ACTIVITY OF APP IN INFLAMMATORY STATUS	28
1.5 DIAGNOSTIC VALUE OF APP	28
2. DYNAMICS OF APP IN THE POST-OPERATIVE PERIOD	32
2.1 POST-OPERATIVE PERIOD: APP REACTION IN ASEPTIC SITUATION	32
2.2 PATIENTS AND METHODS	32
2.3 RESULTS	33
2.4 DISCUSSION. POST-SURGICAL ACUTE PHASE RESPONSE.....	37
3. APP RESPONSE AFTER A LETHAL DOSE OF RADIATION	40
3.1 HIGH-DOSE RADIATION AS AN INITIAL FACTOR OF APP RESPONSE	40
3.2 PATIENTS AND METHODS	41
3.3 RESULTS	45
3.4 DISCUSSION. APP IN AN EARLY PHASE AFTER BMT	48
4. APP REACTION AFTER BONE MARROW TRANSPLANTATION (BMT)	52
4.1 BMT AS A TREATMENT MODALITY	52
4.2 PATIENTS AND METHODS	53
4.3 RESULTS	54
4.4 DISCUSSION. APP IN NEUTROPENIC PERIOD AFTER BMT	64
5. PROFILE OF TESTED PLASMA PROTEINS IN SELECTED CHRONIC ILLNESSES ...	68
5.1 APP IN ACUTE AND CHRONIC STATES	68
5.2 PATIENTS AND METHODS	68
5.3 RESULTS.....	70
5.4 DISCUSSION. APP CHARACTERISTICS IN CHRONIC PATIENTS.....	70

6.	HORMONAL REGULATION OF APP. APP IN CENTRAL HYPERCORTISOLISM	73
6.1.	INTERACTION OF CYTOKINES AND GLUCOCORTICOIDS IN HEPATIC LEVEL	73
6.2.	PATIENTS AND METHODS	74
6.3.	RESULTS	75
6.4.	DISCUSSION. HYPERCORTISOLISM – APP REACTION WITHOUT CYTOKINES	76
7.	APP IN ACROMEGALY	79
7.1.	THE ROLE OF GROWTH HORMONE IN APP REACTION.....	79
7.2.	PATIENTS AND METHODS	79
7.3.	RESULTS.....	80
7.4.	DISCUSSION. GROWTH HORMONE AS A MINOR REGULATOR OF APP SYNTHESIS.....	81
8.	CERULOPLASMIN REGULATION IN EXPERIMENTAL MODELS	82
8.1.	THE INFLUENCE OF THYROID HORMONES ON CERULOPLASMIN LEVELS IN RATS	82
8.2.	ESTROGENOUS MODULATION OF CERULOPLASMIN SYNTHESIS	85
9.	INTERLEUKIN-6, MAIN REGULATOR OF APP.....	92
9.1.	INTERLEUKIN-6 IN ACUTE PHASE REACTION	92
9.2.	PATIENTS AND METHODS	93
9.3.	RESULTS.....	94
9.4.	DISCUSSION. PHYSIOLOGICAL AND DIAGNOSTIC ASPECTS OF IL-6 AND APP	95
10.	CONCLUSION. APP IN MODEL SITUATIONS AND IN CLINICAL MEDICINE.....	97
	REFERENCES	101
	LIST OF ABBREVIATIONS	108