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**Faculty of Veterinary Medicine**  
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**Bacteriological studies and molecular characterization**  
**of Pseudomonas species isolated from chicken in Suez**  
**Canal area**

*Presented by*

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Abstract:	<p>In this study, <i>P. aeruginosa</i> was isolated from (28) out of (200) broiler chickens from Suez Canal area (14%). The yolk sac and cloacal swabs samples gave the highest recovery rates with an incidence of 15.5% and 12.6%, respectively. Moreover, the recovery rate of <i>P. aeruginosa</i> from internal organs was higher from liver followed by intestine with percentages of 4.5% and 2.5%, respectively, but it wasn't isolated from neither gall bladder nor kidney samples. Colistin sulphate, ciprofloxacin, gentamicin and norfloxacin were found to be the most effective antimicrobial drugs while ampicillin, lincomycin, nalidixic acid, streptomycin and tetracycline were the most resistant antibiotics against the isolates. PCR assay inveterated the existence of <i>P. aeruginosa</i> DNA in ten isolates by using 16S rRNA. Also PCR assay was carried out to detect the presence of virulence genes as <i>oprL</i>, <i>toxA</i> and <i>aprA</i> as well as quorum sensing genes (<i>lasI</i>, <i>lasR</i>, <i>rhlI</i>, <i>rhlR</i>). <i>oprL</i> gene was present with a percentage of 100%, also, <i>toxA</i>, <i>lasI</i>, <i>lasR</i>, <i>rhlI</i> and <i>rhlR</i> were present with a percentage of 80% for each of them, and <i>aprA</i> gene with a percentage of 40%. Moreover, PCR detected the presence of <i>higBA</i>, <i>pprA</i> and <i>pprB</i> genes with percentages of 100%, 90% and 100%, respectively. plasmid profiling of 10 <i>P. aeruginosa</i> isolates revealed one common plasmid profile with characteristic bands at 13000 bp in eight isolates with a percentage of 80%. PCR technique detected some antibiotics resistance genes as <i>mexA</i>, <i>mexR</i>, <i>oprJ</i>, <i>oprM</i>, <i>nfxB</i> and <i>ampC</i> with percentages of 62.5%, 75%, 87.5%, 75%, 62.5% and 75%, respectively. Sequencing of 16S rRNA and <i>oprL</i> genes was applied.</p>

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